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<211> 1506

<212> DNA

<213> *Pseudomonas aeruginosa*

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<211> 885

<212> DNA

<213> *Pseudomonas aeruginosa*

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<211> 660

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 5

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<211> 387
<212> DNA
<213> Pseudomonas aeruginosa

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<211> 357
<212> DNA
<213> Pseudomonas aeruginosa

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<210> 8
<211> 372
<212> DNA
<213> Pseudomonas aeruginosa

<400> 8
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<210> 9
<211> 360
<212> DNA
<213> Pseudomonas aeruginosa

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<210> 10
 <211> 306
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<210> 11
 <211> 312
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<210> 12
 <211> 1158
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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 <211> 1482
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 13

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<211> 651

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 14

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<210> 15

<211> 2796

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 15

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<210> 16

<211> 1200

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 16

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<210> 17

<211> 3255

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 17

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<210> 18

<211> 696

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 18

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<210> 19

<211> 717

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 19

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<210> 20

<211> 1347

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 20

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<210> 21

<211> 2613

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 21

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<210> 22

<211> 747

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 22

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<210> 23

<211> 549

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 23

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gacatcgtgc	tcgcaggagg	cgagaccagc	accagctacg	actatgccgt	ccgctacatc	480
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<210> 24

<211> 266

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 24

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266

<210> 25

<211> 747

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 25

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<210> 26

<211> 2235

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 26

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<210> 27
 <211> 258
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 27						
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<210> 28
 <211> 501
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 28						
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<210> 29
 <211> 582
 <212> DNA
 <213> Pseudomonas aeruginosa

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<210> 30
 <211> 756
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 30

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<210> 31

<211> 690

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 31

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<210> 32

<211> 217

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 32

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gcgacgcggc	gatgccaatc	acttggtttt	ttcgggtgag	gtcagcctgc	tgtgctatcc	180
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<210> 33

<211> 1032

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 33

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<210> 34
 <211> 666
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 34						
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<210> 35
 <211> 675
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 35						
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<210> 36
 <211> 246
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 36						
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ccccggtacg	cgcagagctt	gatatcctcg	cgctaccgcg	ctggtgctgc	ttgtatgctg	180
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ggttga						246

<210> 37
 <211> 360
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 37
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 ggcaaaagct ggacgaaagc ggaggtgatc gtgggactaa aatcccagac ttggatcaaa 180
 aggacaatcg aggatttcaa actgctgtgt cttgcagatg gtgtcgcgtt agcaacgtac 240
 cgatgccgtc atcaaaatgc taatggcgat gagtcgttat caatgcgtag ctctgtttgg 300
 aaaacctacg aagatggttg gcacatggtg tttaccaag gcacgaggtt ctccgagtag 360

<210> 38
 <211> 1536
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<210> 39
 <211> 336
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 39
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 ctggttcgcca atcgccgggc taaccgaatg aaagtgcgtg tgcacgatgg cgtgggcatc 180
 tggtttgccg cgcgtcgact gaaccaaggc aagttccact ggcccgcatc tcgccatggc 240
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 cgcgtcggca caggcgggtg gatcagcatg ctgtaa 336

<210> 40
 <211> 267
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 40
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 cgcaaatggc tgacgcttta tcgagaccag cccgtaccag cctcgttacc agcctttgtc 180
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<210> 41
 <211> 1227
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 41
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<210> 42
 <211> 2250
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 42
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 gtctataccg gtcctgcaaa cgctcaccgc cagttggtga tggaccgact caagcgcaag 180
 cccttcgcgg ccaggccga ggtcgtccag gccatcaccg ccctgctgct ggaccgtaac 240
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<210> 43

<211> 1452

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 43

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cgaggattgc	ttgaccgagt	gctgcacagt	gaccttttcg	acaccatgat	cagcaggcag	300
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<210> 44

<211> 606
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 44
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<210> 45
 <211> 255
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 45
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 ctgaccttgg agcaggcgga agcggctgtc gcgctacgag atcagtacct ctgccaggtc 180
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 aagagcgttc ggtag 255

<210> 46
 <211> 363
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 46
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 accagtacct tcgcaggcag caccgagggt ctggcacacg cagtctccgg caatgaactt 120
 tggactgtcg taaaacgaac ttttcacctt gccggattct atttcggcaa gccggccggt 180
 cactcgatca ccatgatcga gctgcacttg ctggactgct cggccgggca atggggctac 240
 aagaccattc cggaaagcgc cggcccgttc tactacggct gtccgctgga gttcctggac 300
 ctggctcacg atgagatcaa ccaggaatgg cgtaaagcc tgacgcacga acaccaagcc 360
 tga 363

<210> 47
 <211> 276
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 47
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 catgcggccg acaacgagcc ctggttgtag tgcgactggc aggccaggca aacagcttac 240
 cggctcctcc agcgccttga gcgcgcaaca cgctga 276

<210> 48
 <211> 690
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 48
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<210> 49
<211> 351
<212> DNA
<213> *Pseudomonas aeruginosa*

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<210> 50
<211> 708
<212> DNA
<213> *Pseudomonas aeruginosa*

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gaacaccttg tcgatctgct tcacctcgcg ggacaagcag acattcggct cctggtactt 660
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<210> 51
<211> 237
<212> DNA
<213> *Pseudomonas aeruginosa*

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atcggcactt ctgacgaaga aggaccagcc tcgcgcgagt cgggtgaata ttaccctca 180
cgcgaacttg cccaacaggc attagaccac ggcacttgga cgcaactgga atattaa 237

<210> 52
<211> 267

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 52

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gatctccaga taatggagaa caccacgccc tggggggaga tggtgcccc cggatgggta 240
tgcatgaag agtggcgcat agcgtag 267
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<210> 53

<211> 540

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 53

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<210> 54

<211> 567

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 54

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agagtccagc gcatcgatcc tgcttctctg gccggcccga ccgctggcga gctagaacac 180
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gatcatgaga ttgctctttt gccagcacct cctggtagcg cagtctcttg ggaactccat 480
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<210> 55

<211> 645

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 55

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cgagctgcat gggggcatgt cgctgacaac gtcagcagat cacgcgttca tcatcgaagc 240
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aagggaagccc tgcgtatcac cggcgggcca ccggcaggga gaaggatccc gatgggtagc 540
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aacaccagta cgacccttaa atcgaggaaa caccgaacct cttga 645

<210> 56
<211> 438
<212> DNA
<213> *Pseudomonas aeruginosa*

<400> 56
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ttgctgctct tccgggtccag tctggcggag tacgcacacg ccaaccccgg ttccaccggt 180
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gcggccgtgg atgctggtac ggaatccgac ctggttgggc tcaggcgcaa cgccaggtta 360
gtcacgcgcc gcctcgagc cactgtcatt gcgctcccta cgcccatccc cgaggcgcg 420
gtggtcgcg tcaaataa 438

<210> 57
<211> 1329
<212> DNA
<213> *Pseudomonas aeruginosa*

<400> 57
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cagcaatacc aggtcctggc ccgcaagccg gcggccaacc agctcgaaac gctgatcgtg 360
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<210> 58
<211> 942
<212> DNA
<213> *Pseudomonas aeruginosa*

<400> 58
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gagtcgcacg tccaggaact gctccagatc tgcaggcaaa cgctggagga gctgcaggac 180
cctgagttcg ccatcgtcgt cgacggcggt ctgcttcgcg tcacctcct cgaagacgct 240
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cgcctgcagg	agttgggcgg	ggtgggctgc	gccgtcgagg	acccgcagga	aaccaacctc	480
agcggtcagc	atgggctcgg	ccgctgcatc	caggtcagaa	cctcacggcg	ctcaggcgga	540
tacagcgagg	ccctgctgcg	cacgctgcgg	gccggcgccg	acctgggtgct	gattggcgag	600
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ggcgacgacg	gcccgtccat	gcgcgacaag	atccgccgaa	aggaggtca	tctgctgcag	900
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<210> 59

<211> 531

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 59

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atgttcagtt	cgtccaacgc	caacgaggaa	caacgcaaca	tcagcgatcat	tcgggccaac	180
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aagttgcccc	aggacgcctg	tatcacgctg	gccaccaaga	tcgcgaagaa	caccttcgag	420
cagaccaaaa	tcaacagcgg	atcctcgatc	accggagaag	tgaccaccgc	agccgcgacc	480
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<210> 60

<211> 1080

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 60

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<210> 61

<211> 1581

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 61

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gacggcacgc tctatctatc ggagagccac cagaacgaca tacacgttct gtcgttcac 180
gaccgtctcg atcgccgtgg cttccgatac cagctcaacc tcaccgacct gcagaccatt 240
caccagcttt accgcgccgt cgccatggac ggcctggctg atagcgatgg ccagcgcgcc 300
acccagatgc aggagcgcggt ggtcaagatc attcgtaagg cactgagct gcgcgccagt 360
gacgtgcatt tcgtcgtgag tcccgccggc accggcagca agatccgttt ccgcgtcgac 420
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atggctcagg atttcattgg gccactcgac ttcgatgagc atctgctcga cgacagcttc 1560
tactcgagg aggcgtgctg a 1581
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<210> 62

<211> 534

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 62

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gccaagggtg gcctggccac ggcgagcgg caattggaag gcaaaggcga aaccggccag 180
gtcgtcagcg cccaggggca gacgttcgcc atgccggtgc cggcgggcgc gccgacgatc 240
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acgttcttgt tcccgggcgg gtacgaggtt gacgccgcca gcggcgcgga gctgcctggc 360
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cgcggtgccg tgggttctc cagcgttgcc cccaccaag cctcctctac ggcccaaggc 480
gcctcggttc cgccggcgct gccgggggct gtaccgcagc cgttcattca gtag 534
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<210> 63

<211> 1326

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 63

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gaagcgcgca agctgggcaa ggaagagcat ctggacatcg ttgccatccg ccattcaccg 180
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gaggaactgc	tcgcgcgcaa	gcgcctgcgg	cgcgactacc	gcctccggca	actcaccttc	540
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ctcgaaacca	cgctcaagga	cagccagttg	gactggactg	tcacaggaga	aatctatgcg	1320
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<210> 64

<211> 1623

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 64

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ctaagcgttt	cgcacacctt	gtccagtgcg	tgcacgtgta	cgtggcgccc	tgcaggcgca	180
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gccaacggca	tgtcgctcgg	tgccggcggc	agcatggggg	cgagcttcgg	gtcctacggg	420
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<210> 65

<211> 1125

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 65

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gacctgtatc	caaacggtgt	gcagccggag	aaagagcccg	tagtgcgcta	tgggcgctac	180
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agccgcccgc	agtccttgat	catcatcaag	gagcgcaaga	actga		1125

<210> 66
 <211> 327
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 66						
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ttcagta	tcctgtttcc	tttctcggtg	aggcttggtg	aagacttcgc	tttaaaatat	180
acggaaaaag	agttctgggt	cacaggtttt	ttctccgaaa	cccctgcaaa	aacaggattg	240
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<210> 67
 <211> 1497
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 67						
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<210> 68

<211> 1974

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 68

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gacgagcaac	tgtggcaact	gctcaacgcg	aaacgcagcg	ttgccagga	cctcatcgag	1920
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<210> 69

<211> 1890

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 69

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cacatgacgc	gcttcgccaa	tggtcgctgg	aaggcgggcc	tcgccgaagc	cacggcggaag	1860
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<210> 70

<211> 471

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 70

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agagagctgg	ggtggcgctc	ggttaaatta	gatgaggaca	aaagcgactt	agctagagtc	300
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aactgggaca	accagcgag	gacaatacat	cttattcttt	taagttaaagc	tatccttgac	420
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<210> 71

<211> 1926

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 71

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tcgattcgctc	ccgacgtgac	ctggcagggtc	gaggcgacag	ccggccacat	cagagacctt	120
cccgttcacg	ggcaggatcc	gcagatgctc	accgtcgccg	tgggccagga	tttcaaaccg	180
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cgcaagaaa	ccggcaaaag	cggcttcgac	ttctgggggt	gcagcggcta	tcgaacaaca	1860
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<210> 72

<211> 234

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 72

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ttgagctatg	acggcagcgc	ctggtgggtc	gatgcggatg	agcccgcgac	ggaggacgag	180
gtggcggctc	tgtaggtcaa	ggctggtggt	gtcactacgt	gctggtgcgg	atag	234

<210> 73

<211> 246

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 73

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gcgaccgata	ccgacaagct	ggacagacga	cacttcaacg	atccccaccg	gactgtacgg	120
gctattggtg	ctgaggccgc	gcggaaaagg	ctacgggtgt	tcgactgccc	ctacagtcac	180
cctgcgatgc	ggcgtcctg	gttgaaaagg	tttgcccagg	agcagcaaca	gcagctcgac	240
ttctga						246

<210> 74

<211> 470

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 74

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<210> 75

<211> 534
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 75
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<210> 76
 <211> 729
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 76
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<210> 77
 <211> 240
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 77
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 gtaaccgtgt tgaccattac ggttgagatg tatcgttttg aaatggcgga aaaagcgatg 180
 tggggagctt tatgcaacaa agccaactac atgaactgcc aaccagatta ccaacggtag 240

<210> 78
 <211> 276
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 78
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 gccgacctcc gcgcgcgcgc cgagctgggt gattccactg gaatcactct gccagggatc 180
 cacttcggta tcggcggcaa gatgggtgtt tcgggccgaa acacttcgcc aaagcgaggc 240
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<210> 79
 <211> 1326
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 79
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<210> 80
 <211> 768
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 80
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 cagcctgccc tcatgagcat cctgaccaat acccgggttt cctgggtaga tgcagagtg 180
 aacatcgacg tcatggagaa aatcctggcc acagccgagc gcagcgcgca ggaagacctg 240
 cagatcgaac gcgcactgaa gctgggagcc accacaacga tgatccagag ctttttcggt 300
 ctgtcgccgg aggacaccgc caccaagcgc ttgatgctgg agatccacc gcgcgcggt 360
 cgctggcggc agctcgatga acagatcgag cgccagatat gggtccgctg ggagcacctg 420
 atgcaggaaa atcaggtccg ccttgaagac agcatggagt tgctggacat cgcgatgatc 480
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 attgtttggt ctctcatcca gagctggttg aaagacgggc tctatccgtc tggcaaatcg 600
 agccagagcc aggcgggcct gcaaaagtcc caatccactc tttacctcgc tagcgtcagc 660
 tcacacctgc cccactctgc cccatccgca acaacgcagg tgaacgctga gacagaaagt 720
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<210> 81
 <211> 1740
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 81
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 ctgacactcc acgacgtcct cccctggcac gataaccccc ggaccactcg aaacccgaaa 180

tacgatgagc	tgaagaatc	gatccgacat	cgaggcctcg	atacgccgcc	accagtgact	240
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aagccctggg	acaagcagcg	cggcgaaatc	atcgcgctga	ccggtcattt	ggccgagaac	420
gatctgaagg	gcgacctcaa	gttcatcgag	cgcgcggttg	gggtgcagaa	ggcgaaattt	480
ctttacgaac	aagagaacgg	cggtgaaagr	atttcccagc	gcgagttggc	acgtcggcta	540
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gcaggccgtc	tcaatgacga	agccctgggtg	aaactgttcc	ggatcattcg	tcttgcccga	1680
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<210> 82

<211> 255

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 82

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gatcagctaa	agcaaaaagc	cgcgataaac	caccgttcgg	ccaacagcga	gatcgtctac	120
cgactggagc	gcagcaacgc	gctcgaagaa	gaactcgcgc	gagcaaaccg	aatggctgac	180
gaactcttcg	ccaagaacca	gcgcctgcag	gctgagctgg	cggcggcgaa	cacgcctcag	240
gtggcggagg	catga					255

<210> 83

<211> 1017

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 83

atgcctatca	aacacgccat	cgtccacctg	atcgagaaga	agccccgacg	cacccccggcc	60
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gacctcaacg	aaagctacaa	cgccaagaac	aaggcctggg	gcttcttcca	gggcgagtcc	180
ggggcctacc	cgttcagcgg	ctggctcggc	gagtacctgg	agggcgaccg	cgacttcgtc	240
ggcttcagcc	gcgaagcgg	cgagcacctg	caaaaagtga	tggaggagtc	caatctcttc	300
accggcggcc	acgtcctggt	cgcccactac	cagcaaggca	tgaccgacta	cctggcgatc	360
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cgcaccctgc	tgaagcctt	cagcgatttc	gtggaaagcg	aggacatggc	cgaggaacag	660
gcccgcgaga	agaccgagac	gctggtcgac	tacgccacct	cgcaggcgcg	catcggcgag	720
ccgatgacct	tcgacgcgct	ttcggaactg	atggacgacc	agcaaccgcg	ggcgttctac	780

gactacatcc	gtaacaagga	ctacggcctg	tcgcccggaaa	tcccggcgga	caagcgcacc	840
ctcaaccagt	tccgcccgtt	caccggccgc	gccgaaggcc	tgatgatcag	cttcgaggcg	900
cacctgctgg	gctccaggat	cgagtacgac	gaggagcgcg	acacgctgca	gatcagcagc	960
ctccccactc	aactccgcga	ccagctcaag	cggcgcaagg	cccaaattgg	agaatga	1017

<210> 84

<211> 234

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 84

atgcgtagtt	tccttcgcgg	cgcccgggaa	agcgttcgcc	ggctgggtggc	cttcgctcaa	60
gcagaaggct	ggagcgtcga	ccgctccgca	ggcggccact	tgaagctcag	caagatcggc	120
tgccgctcga	tcttcatttc	ttccacgcca	agcgacgcac	gcggcgagct	caatgcccgc	180
gccctgctcc	gtcgagccga	caggcagcgt	tccctgaacc	aggagtcttt	ctga	234

<210> 85

<211> 495

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 85

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gagctcaagt	tgctgaagg	tccttcgtgg	atctgtctga	actgcggtta	tcacctggat	120
ggcagcgcg	cacagccctg	ccctgactgc	ggaaagtcgc	gctactggac	cagcggttgg	180
agtgtaggtc	gtggccatcg	cttctcggca	gcaagggaag	agtgggaaaa	ccgcctcagg	240
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caactgcgca	cagaggtccg	catgctgcgt	tccgcgcatg	acgacctggc	ctgcagccgg	360
cagagcgatc	gtcgagcctt	tcaggcgctg	gtgaaacgtc	tcctggatgc	cgccgccacc	420
gatagccttc	cccgtctcct	tgcagagatg	gagacctggc	tgcagctcaa	cagcgaggag	480
accacgaatg	cgtag					495

<210> 86

<211> 258

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 86

atgaaggcgt	cccagaccta	tcagtgcata	gtcaagttcg	atggcgccgg	tttctggacc	60
aataccattc	agaagcagcg	tgcgacctgc	acctggagcg	acaagggtggc	agcctccccg	120
cttgccgaac	gactgtttgg	cgaggacaac	gcatacatca	cccgtatgcc	ggtacaggca	180
ggcgaccacg	aaaagcgcat	cgagagccgc	tggcgctgt	cctgtagaaa	tcccaaggag	240
gtagcgcgcg	atgcctga					258

<210> 87

<211> 528

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 87

atgaacactg	aagcccgtt	tccgagtata	cagcctcgg	ccgcgttcac	cgactcggca	60
gtgggtcatg	ccaatcacgt	tgggttcaac	cccacgagc	tggaagccct	cagccaagt	120
atctcgcgcc	tttcgcgga	cgagagcacg	gtcgcaccca	gttcgatgga	gcgagagctt	180
cgtgagctgg	aggaactggg	gtacatcgaa	atctcgacca	cccaggccgg	gactctgggt	240
gtcactacgc	gcgctccggg	gcaattgctt	tcggcttact	tctggtcggt	atggatccc	300
cgacacctgt	tcagctgctc	gctgaaagt	agcctggtgc	cgcacctctg	ctgcggcact	360
caggactccc	agcacctcac	cgccgtgttc	cgattgcag	gcagcaagga	cgccgcgcgc	420
gagttcctgc	atcagttggc	caacaactat	cccgggcatg	agccggagtt	gcccgaactg	480
gtggccgttc	aggtcggtag	tgactcagc	aaggaggccg	agtcata		528

<210> 88
 <211> 1363
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 88
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 caacgccgat ttgctcgata tcaacaagag tctcacgaag atcgctcgaca ccatcgatta 540
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 caaaacgtcg tttgccctca acctggtcga caccgcgctc cagagcgacc aacagaagtc 720
 tgttcagggtg tacagcatgg agatgccggc agagcagttg ctgttcaggc ttgccgccct 780
 gttcggccac ctggacctgg gcaagctgat gaagggccaa ctgcaagaag aggattggcc 840
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 aatcatcatc ggcaagtatc gcaacggctc gatcggcacc gtccacaccg ccttcatcgc 1320
 caaccagacc cgctttgccg acctggcgcc ggggacctgg caa 1363

<210> 89
 <211> 708
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 89
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 ctgctgcgcc tgtatccgga tatgccgaac gaggtcctgg cagccaggtt gaacaaaacg 180
 ctccagcaga tctgctccag agcgtatcgg ctccgggtga aaaaaagccc tgagttctcc 240
 aagaagatcc ggcaggactg gggcagcgca actcggttca agaagggaac caccatgg 300
 aactgcggca tgaaggggct gccgcgcgca ggacgcgcac cagaaacgca gttcaagaag 360
 gggcaaaagc cccacacatg gctcccagtc ggcagcacgc ggtcagcgc tgatggctac 420
 ctgcaacgaa agatctcgga taccggctat ccccccggg actggaagg catccacatc 480
 ctgctctggg aagaacactt cggccccatc ccaaccggcc attgcgtctg cttcaaggac 540
 aacaacaagc agaacgtcgt catcgacaac ctggagctca tcaccggggc cgaacgcatg 600
 cgccgcaact ccatccatcg ctatccacct gagctgaaga gcgcaatccg cgtcatcagc 660
 aagctcaaac gcaccattca ggaggtcgag catgaagaac aagattga 708

<210> 90
 <211> 702
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 90
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 ttcgacctca gcgatcgga gatctcggcc cacacggtgg aaaccgctg cgttccact 180
 cgaaccaggc gctctcctgc cccatggctg catgaactgg ccgggatctg ccgcagttcc 240

ttcggctgcg	actacctggc	ggcatacgcg	atgccagcgg	gctggacgtt	caagttcatg	300
ggccgagggg	tccggccctga	gctggccgct	cacgcctact	ctacgctcca	ccaccaactg	360
gtggcagcgc	gctcggctca	tgtcgcccaa	cagaagcgct	gcaagctgtc	gaccaagcgt	420
cgtcgagcga	agctcttcgt	cgaaggctgg	cttctcgag	tgcgttcgct	ggtacgtgaa	480
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gcctcgctgc	aagcaggctg	ggagcacggc	aaaaacactc	gcctgcaccg	cgggtgtcagc	660
cggcgagttc	agggcgcgct	cgagcagggg	ggttcccaat	ga		702

<210> 91

<211> 687

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 91

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gaacccgagc	tgctcgacac	cgatgcctgg	aactgtgcca	ttgaatgcct	ggactgccag	120
gttcacatcg	ggccgtccta	ctgcgagcca	gacccggtaa	cagcgaggta	ttcagcacag	180
atcgactgga	atagacgccc	aagcgcaaaa	aaccacgcgg	acgagcgtga	gcagttcttg	240
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gtcgatcggg	taagacaggc	cacagaccga	atttacccaa	cttcgaacct	ctcccctgtt	360
ccgcaggcct	ggctcgatgt	acaggccgag	cgccggcgcc	agatcaccgt	cgaagggttc	420
gataccagca	acgacgacgc	tagcgctggc	ctgatcgccc	tggcggccgg	ctgctacgcg	480
ctccatgccg	gcggcatcgg	caccgactgg	ccgggcgcca	ttcggaatgg	ctctgcactg	540
ttctggccct	gggacgaaga	gtggtggaag	cctaagtcgg	cgcgcgagaa	cctggtacgc	600
gccggcgccc	tagtgctggc	cgagatcgag	cgcttggaac	gctccgccac	cgagcagggc	660
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<210> 92

<211> 498

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 92

atgaacctcc	agaaccgcaa	caacctccta	ctgagcttga	tcgccgagac	ccagttcgac	60
gcctacgtgc	aaggctacat	ggccaaagca	ggcgctgccg	ccggtgcttc	cgagaatctg	120
caaatcgagg	ctgaagggtg	tgcgatgttg	cagggcctgg	tcgctccggt	tcgcgctcag	180
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cgggacatga	acagggcgat	ctggaacata	gctactgccca	tcgatcacct	ggccgagttc	360
gcccaaccct	cgcaggacac	tgtgagggtc	atcgaacggc	tgatgctctt	cgtcggcagc	420
tcataagca	ctgaaggcca	gcaactggcc	gccgaggcaa	atgcggtgct	cggcatgagc	480
gtgggaggcc	tggcatga					498

<210> 93

<211> 681

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 93

ctgaacaagt	tccgcagcgc	cgccgacctt	cggagccagc	aggccaaatt	gaccggcgct	60
acgcgagaaa	tacgcaagct	gactgggtgg	ggtatcgacc	tggttcgggaa	gctgggttgc	120
tacttgagct	tcgaacaaaa	gcagctccta	caagacgcag	cgcgcttgct	cgactcggtg	180
aacaagcaga	tcgagcatgc	gaaggaaaag	cgtgatcgct	acgagaaaaa	agccaagaag	240
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gagcgtccaa	agcagctcat	cggatggcgc	agtgaagccg	agtatttcgc	tagtcaggtg	480
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agtgaagtcg aggagcgcct gcgcgtcatc aagcagaagg tcgctgactg caccgcacag 600
atcgctctga ccagcgagga gcaggaaacc cttcggtctt ggacagacgc tctgcaatcg 660
gctccggagg gcctcatatg a                                     681

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<210> 94
 <211> 930
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<400> 94
atgaatgcga aagcgacttc ggttgatatcc accaagggtg gtgtaggaaa atccaccacc 60
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gaccccgctc agccctccct atcctcgtac tacgagctgc cggaagttgc ccagggcggc 180
atttacgacc tgctcgccgc caacataacg gacccggcga ggatcatctc caggacgatt 240
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ctccaggcgc ccgatggccg gctacgcctg gcgaacctga tgcccgtctt gaaagaaggc 360
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aaccgcggca ccatgcaaat gctcgacggc ctacgcccct atgagcgtct cggcatgcgg 540
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gccatcgagg tctttcccga gtggactgac cgcttcctgg cgctgacgcc gggaggcggg 840
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acgtcgacgc ggaacttgtg ctggaactga                                     930

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<210> 95
 <211> 322
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<400> 95
atgggatctt accgcccga gacgtctcgc ctagcgatac cgatactgag gggccgggcta 60
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ttaccgagag cgctggatt ccagcgccgg catgctggca gagccccgca atttcaaggc 180
cgaaaccgca gtaccctctg taatcgctga ttacgtcgag ggcacattgc tacgcctgca 240
gaatggtttc agggcctgaa aaacagaaaa gccaccta ataggcgggc tattccatat 300
tgacatcacg tcaatgcggg cc                                     322

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<210> 96
 <211> 1281
 <212> DNA
 <213> *Pseudomonas aeruginosa*

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<400> 96
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ccccccaggc gagcaagcaa aaccgtcgca gccgaagcca tctgcgcgc ccgcaattgg 360
ctcaacatgc aggtcggcgc cgagcgtgac actggcgatc gcgcacgcat cactcccgcc 420
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acagagaaaa ctcataaaga gttcgtagt ccaataacgg aggggcttgt gcctcaccta 600
tcgcggtctc tgcaggaggc cgatagagcc ggattcgccg atgacgacca gttgttcaac 660
gtcaaccggt tctcaccgca ctacaagagc aaggtgatga actccgacca ggtcgaagcc 720
atgtaccgga agttgaccga gaaggttggg gtgcggatga ctccgcaccg tttccggcac 780

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accctggcca	ccgacttgat	gaaggcacc	gagcggaaca	tccacctcac	gaagtgcctg	840
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cgtgccgtgc	tgcatgccag	aagcctggcc	caaggagcgc	tggagaacgt	caggaagggtg	960
gattacagcg	gctccccgca	agcctctgcc	aaaccgaagc	catgcgggca	acctctcgct	1020
cgaatgggtg	aagcgcgcc	acaggaggct	aggacagaac	ctgcagaacc	aagggagcac	1080
acaccagggg	caggcattca	gggagatgca	accgcgtggg	aagaagcgct	accacagcca	1140
cctgacacct	tcgagcaaa	cgtgctgttc	actctgatgg	ctcaacacct	atcgaaccgt	1200
gccgccacgg	cctccgcggc	ttccaccgca	acaagcggat	ctggaggatg	gggatctacc	1260
gcccgaagca	gtctcgccta	g				1281

<210> 97

<211> 378

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 97

atgaaatctg	gtatcgcgac	ccgtcgcctg	ttcatcaacg	acaccaaggc	tttgggtgcat	60
accgtcgacg	ggaccgcat	gctgggtcacg	ccagggaatct	tcaagcgta	tgtccaggag	120
catccggagg	ttgaaaagct	ggcccaggcc	aaggagaccg	ccggctggaa	gctgggtgag	180
cgcgcggttcg	agaaacagg	tcttcaccga	aagaccagta	agaacctgaa	tatctggacc	240
atcaaggttt	ctggctctcg	caagacgaaa	gagctcaagg	cctacctgct	ccaggatccc	300
aaattgctgt	tccctgtgca	gcctctggac	aaccaagcc	tcacgggtcat	caccgatgcc	360
gaaggagggtg	tggaatga					378

<210> 98

<211> 843

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 98

atagaccagt	tgagtgcgca	ggagtcggtg	gaagtgggtct	gctcagcttt	cgatgtggcg	60
cggctcttgct	actacgtcca	ccgtcttcga	cggcggcgtg	tcgatgctcg	ccgcgtggcg	120
ctacgcagcc	aagtcaacca	gttggttcagc	cagagtcggg	gctcggccgg	cagccgcagc	180
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atgcgtgagc	tgggcctggt	cagcaagcaa	ccgggctcgc	acgcctacaa	acaggccacg	300
gttgagcggc	cggatatccc	gaatcggctg	aaccgcgaat	tcgcgaccga	gcatcccata	360
caggtgtggt	gtggcgacat	cacctacgtc	tgggcgcaag	gccgttgga	ctacctggcc	420
gcggtgctgg	atctgctgat	cggctggggc	ttctcggcc	agccggatgc	cgaactgggtg	480
atcaaggccc	tggaatggc	ctacgaacag	cgcggcaggc	cacagcagg	gctgttccat	540
tcagaccagg	gcagccagta	cgccagccgc	ctgtttcggc	aacggctctg	gcgctatcgg	600
atgcagcaga	gcatgagccg	tcgggggaat	tgctgggata	actcgccgat	ggagcgccctg	660
ttccgcagtc	tgaagtcgga	gtgggtcccg	tcaacgggtt	acctgacggc	gcaggaggcc	720
caacgggaca	tcagtcatta	cttgatgcac	cgctacaact	ggatcaggcc	gcatcaattc	780
aacgacgggt	taccacctgc	ggtggccgaa	gaaaaactca	acccactgtc	cgggatgggt	840
tga						843

<210> 99

<211> 285

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 99

atgttgatt	tttcttgag	tatgaagatg	ggtgggtggg	tcggatatag	gtactttctct	60
ctattttctt	taattgctct	catctatggg	tgtgtcgggtg	gtggagggtg	atcggatgag	120
attgggcagc	actgctttga	gagagagcaa	aagctttccg	gagttaatga	taatgaagag	180
gggagtgtga	ggttgaatcg	gctgaactgc	gatccaattg	aaggtcgtgt	tcttgaatca	240
gagaagctga	taagaaagcc	gcccaatgag	ctgggtattc	actga		285

<210> 100

<211> 624
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 100
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 gatgagggct caaatgatgg aagtgaata tgctggggcg aggggtggagt tgaaataaca 120
 agtctggggg aagtctcaaa ggggtgtgat gttgaagatg ttgtagtttg ttcgattctt 180
 ccaagtaata tgaagtcgag tcaaagagcg cctacactcc ctccctctgca aaggatgata 240
 atttcggcaa tgccttcacc aggaacggtc actgtttctg ccagcggaga taggaaattt 300
 acaacatctt gccgggcaaa tctttatgct ccacgttatg ccaatttcta tccagacggt 360
 gtttagcagg gaacatcaga tctacgatgt gttggttaca atacacccgg gaattcatct 420
 caagggtgta atgtgtcatg ggacggccc accgacattc aattgggtgt tgagccatat 480
 ggcggatctg ttgttgtaaa ctacagttgc actgcattca aaacaacgat tccagtgata 540
 atgagctaca gttatcgtga tggcggggca gtgtatggcg aggtccagaa tgtgtcagga 600
 ataataaatg tggttttgaa ctaa 624

<210> 101
 <211> 318
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 101
 atgcttatta aaattcttcg aattatattc ttgttgcccta tagttggttt ggcacagcag 60
 gctgctgcct ccccgccgc agagtcacac tcggaacaat ctgaatcttc gtgtatcgat 120
 gtccaagtca atggagcacg tagcctgtct tataactgca tggctcagca aatgactcca 180
 cccaaagagg atcctcggcg tcggaaccct acctgaact ccacattagc gtctgaacgc 240
 gccactcgcc tgccacccac acagacagga ctttttacca gccttcatca acgtgccata 300
 tcgaactcga aagactag 318

<210> 102
 <211> 204
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 102
 gtgagtagta ctaagagtaa gccgatagcc agggggcggtg gtggccatt tggggaagtg 60
 atgaagaggt gcgggcttgt accggttcga ggaaggaata gacagcagac aggatcgctt 120
 gcgatggggc agcaggaaac catcagccc tccgtatcca gaactgctgc ttgcagcggt 180
 aggggtgact ccctcatgcc ctag 204

<210> 103
 <211> 219
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 103
 atggaacgct tgctcgagag catttacatc aatgcccggc cggcgatgga gttgaggctt 60
 agcctcacca gctccggccg caagagaatg gtaaagattg tggatgggga ggaggtcgag 120
 gttctgccag gtgaagtga gggcatcctg gaggccaaa agaggatgt tggaatcctc 180
 gccgacttct tagccaagag tctcgtggcg cgacgctag 219

<210> 104
 <211> 450
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 104
 atggaatgcc acgttcgtcc cgccacgagc agagatgcag cagcgataag ctgcgtagtt 60

atagccgccc	tgcgtgagtc	aaattcacag	gactatccgc	ctgatgtgat	cgctcaggtt	120
gagcagagct	tttctcctga	agccatcacc	acacagctta	cgaagcgtag	ggtcttcgta	180
gccttatttg	gcgaaaacat	tattggcact	gccggtctcg	acggtgacgt	cgtcagaagt	240
gttttcgttg	acccagctca	ccagaaaggc	ggtatcgggc	ggcatttgat	ggatgtcatt	300
catacaactg	ctgccagcgc	gggagttgga	gctgtacgtg	tgccatcgtc	gattacagct	360
gaaaggtttt	ataccgcatt	gggttatcag	aaaatccgcg	acgagtttca	tggggcggag	420
cgccaccatcg	ttatggagaa	gcggctgtag				450

<210> 105

<211> 1101

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 105

ttgtggttga	cctgcacgcc	acagcaggat	gtgcaggcgg	cgtagctac	agcgtcgata	60
ctcctgggcc	agttccacca	gttgggcgtg	cagctcggtc	ggtacactag	cctcgacccg	120
cttgaggaag	tcgagaagaa	cgcttctgca	ctgccgtctc	ctgcttgga	aacggattct	180
actaagttca	gcgtggtact	gaaatcgggg	ggcaggtcaa	tcgacaaaag	tatcccgacc	240
gcaggtttgt	tggccacgt	gatggtggcc	aagtttgccg	atcacttgcc	gctgtaccgg	300
caggagaaaa	tctttggccg	cgccgggctg	gcaattgctc	gctcgaccct	ggcgagtg	360
gtcggacaaa	ccggcgtg	gcttcagcca	ctggctgatg	caactgcgtg	agccgtgctg	420
aaccagggcg	tgatccacgc	tgatgaaaca	ccggtgcaaa	tgcttgccgc	aggcgagaa	480
aaaacccacc	gggcctatgt	ctgggcgtac	agcacgacgc	cgttttcagg	gctcaaagcg	540
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atcactgaaa	tcggctgcat	ggcccacgcc	cggcgcaagt	tctttgattt	gcacgtggcg	720
aacaaaagtc	agctggctga	acaggccctg	caactcgatca	gcggcttgta	cgaggctgaa	780
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ctggacgatg	gggctgtg	catcgataac	aatcaggtcg	agaaccaa	acggccatgg	1020
gcgctcgggc	gttcgaactg	gctgtttgcc	gggtcgctgc	gcagtggtaa	acgggcggct	1080
gcaatcatga	gcctgatcta	g				1101

<210> 106

<211> 570

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 106

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aaccaggtct	tgctgatgga	tttcgtcttc	gacgcgctca	gcactggg	acggatcaaa	120
tgctgacgg	tggtcgatga	cttcaccaag	gtgtcggtcg	acatcttggt	ggagtacgg	180
atcagcgggt	ttcgtgtcac	gcgggcgctg	gacgagatgg	cgcggtttcg	tggctaccgg	240
caggcgatcc	gcaccgacca	gggccccgag	ttcaccggca	aggcgcttga	tcagtggg	300
tgctcagcgtg	acatcaagtt	gaagctgatt	cagcctggcc	agcccacgca	gagcgccttc	360
atcgagtc	tcaacggcaa	gttcggggc	gaatgcctca	atgagcactg	ctcgtggtc	420
gaagccagaa	tccgtatcgc	ggcttggcg	gattacaacg	agcaccgacc	acacagcgcc	480
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aagcgggaaa	agttgatata	aaccccatag				570

<210> 107

<211> 2066

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 107

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ccgtcgcagg	cagcgcataa	gtccgcgcagc	ttgcgtcagg	aaccttcagg	gcaaggtctc	120

ggggttgccc	taaagagcac	gccgggaata	ctttccggga	agttgccgga	aagcgtagc	180
gacgtgcgtt	tcagcagtc	ccaagggcaa	ggggagtccc	gtactctgac	tgactcggca	240
gggccgcggc	agatcactct	gcgccagttt	gagaacggag	tcaccgagct	acagctcagt	300
cggccacccat	tgaccagtct	ggtcctaagc	ggcggtggtg	ccaaaggtgc	ggcatacccg	360
ggagcaatgc	tggcgttaga	agagaaaggc	atgctcgatg	gcatccgcag	catgtccggt	420
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cctggccagc	cggattccaa	cgtagctctg	ttacgtcggg	cgaggagca	gctacggcat	1920
gccaccagtc	cggcggaat	caatcaagcg	ctgaacgata	tcgtcgacaa	ctactcggca	1980
cgaggcttcc	tgcgtttcgg	caaacccttg	agttcgacta	ccgttgagat	ggctaaggct	2040
tggcgggaata	aggagttcac	atgatt				2066

<210> 108

<211> 414

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 108

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cttttcgtcg	tcgagttggg	acttgtgcct	tcagggttac	cgctgggtgt	gatcttgcaa	180
ttgttacaag	tgaactctcc	attctcatcc	ttggcaccgg	tgaacttg	ggcggaacgat	240
gccggtagac	ttgtgctctg	ggctgaggca	cgtgatggcg	ttgacgatgt	ggatgcactg	300
aaccgcttgc	acgataggct	gcgggaagga	cattcacgat	tagtgccatt	gctagagccc	360
acgggtgagt	tggttccagc	tcagatacaa	accagcgcg	tagtggtcgt	ttga	414

<210> 109

<211> 514

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 109

aattcgcggc	cgcggtgcga	cgaccaaacc	tgtgataaacc	tgtctcaaaa	ccctcctcat	60
catctactcc	ttcgtcttct	ggatcactgg	ggtgatcctg	ctggctgttg	gagtcctggg	120
caaacttact	ctgggcacct	atatctccct	tattgccgag	aactccacaa	atgctcccta	180
tgtgctcatc	ggaactggca	ccactattgt	tgtctttggc	ctgtttggat	gctttgctac	240
atgtcgtgg	agcccatgga	tgctgaaact	gtatgccatg	tttctgtccc	tgggtgttcct	300

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ggctgagctc gtagctggca tttcaggggt tgtgtttcgt catgagatca aggacacctt 360
cctgaggact tacacggacg ctatgcagac ttacaatggc aatggcaatg atgagaggag 420
ccgggcagtg gaccatgtgc agcgcagcct gagctgctgt ggtgtgcaga actacaccaa 480
ctggagcacc agcccctact tcctggagca tggc
514

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<210> 110
<211> 519
<212> DNA
<213> Pseudomonas aeruginosa

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<220>
<221> misc_feature
<222> 239, 383
<223> n=a, c, t, or g

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<400> 110
aattcgcggc cgcgtcgacc aagtgcaaca ccctccactg tgccttttgg accagcacca 60
acaggaatgt atccctccgt gcctcccacc ggaccacctc caggaccccc agcacccctt 120
cctccttccg gaccatcatg tccccacact ggtggtcctt atccagcccc aactgtgccg 180
ggcctggcc ccacagggcc atatcctaca ccaaatatgc cttttccaga gctaccana 240
ccatatggtg caccacaga tccagctgca gctggtcctt taggtccatg gggatccatg 300
tcttctggac cttgggcgcc aggaatggga gggcagtatc ctaccctaa tatgccatat 360
ccatctccag gcccatatcc cgntcctcct cctccccaag cccctggggc agcaccacct 420
gttccatggg gcaccgttcc accaggagcc tggggaccac cagcaccata tcctgcccct 480
acaggatcgt atccacacc aggactctat cctactccc
519

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```

<210> 111
<211> 514
<212> DNA
<213> Pseudomonas aeruginosa

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<220>
<221> misc_feature
<222> 506
<223> n = A,T,C or G

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<400> 111
aattcgcggc cgcgtcgact gcggaggagc ctctgtcac aacaccctgg ggagctacaa 60
gtgcatgtgt cccgccggct tccagtatga acagttcagt ggaggatgcc aagacatcaa 120
tgaatgtggc tctgcgcagg cccctgcag ctatggctgt tccaataccg agggcggtta 180
cctgtgtggc tgtccacctg gttacttccg cataggccaa gggcactgtg tttctggaat 240
gggcatgggc cgaggaaacc cagagccacc tgtcagtggg gaaatggatg acaattcact 300
ctccccagag gcttgttacg agtgtaagat caatggctac cccaaacggg gcaggaaacg 360
gagaagcaca aacgaaactg atgcctccaa tatcgaggat cagtctgaga cagaagccaa 420
tgtgagtctt gcaagttggg atgttgagaa gacagccatc tttgctttca atatttccca 480
cgtcagtaac aaggttcgaa tcctanaact cctt
514

```

```

<210> 112
<211> 400
<212> DNA
<213> Pseudomonas aeruginosa

```

```

<400> 112
aattcgcggc cgcgtcgacg gggatgttta caaccccagc accggggtct tcacggctcc 60
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agcagtgtctg tcggctctcca acgccagcag tggcccagct gcataccgct ggggtacagga 180
gagagttcct ggaataccac cgccctccag gagctttgca tacctgcggg gggccggggg 240
cattccacct catcgtgcac ctgaaggcgg gagatgcagt ccacgtcgtg gtgactgggg 300
gcaagctggc tcagacagac ttgatgaaa tgtactccac atttagtggg gttttcttat 360

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atccttttct ttccacctc taaggtggct ggggagatgt

400

<210> 113

<211> 433

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 113

aattcgcggc	cgcgctcgaca	aagaaaaaaaa	gaaagttttc	actctgggct	gtggaactat	60
ttcaggactt	cctgaggggt	ttcctctgga	gcttcctgag	tttctcctg	gacattttgt	120
ctccaggtcc	cagcgccagg	caggggtggc	tcccgaagg	gctgtgggtg	ccaccctggc	180
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gcactggctt	gtgaggagct	ccctctgccc	gggagaaaat	ggctcctccg	ggtcacaggc	300
tcccctccag	ggactgaggg	gcatttttgg	attgtgggga	aggcgctcca	gggcccgggt	360
ctgtggcccc	aggcctgttg	ctcggctggg	tggaggcacc	tctgcaggcc	gggagcttgg	420
tctttgaaca	cct					433

<210> 114

<211> 400

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 114

aattcgcggc	cgcgctcgacg	gggatgttta	caaccccagc	accggggctct	tcacggctcc	60
ttatgatggg	cgctacctga	tcacggccac	cctcaccccc	gagagagacg	cctacgtgga	120
agcagtgtcg	tcgggtctcca	acgccagcag	tggcccagct	gcataccgct	gggtacagga	180
gagagttcct	ggaataccac	cgccctccag	gagctttgca	tacctgcggg	ggcccggggg	240
cattccacct	catcgtgcac	ctgaaggcgg	gagatgcagt	caacgtcgtg	gtgactgggg	300
gcaagctggc	tcacacagac	tttgatgaaa	tgtactccac	atttagtggg	gttttcttat	360
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<210> 115

<211> 506

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 115

aattcgcggc	cgcgctcgacc	gcaactgtca	agacattgat	gagtgtgtga	ctggcatcca	60
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cgagtgcctt	gagaactacc	gccgctccgc	agccacgctc	cagcaggaga	agacagacac	180
ggtccgctgc	atcaagtctt	gccgccccaa	cgatgtcaca	tgcgtgttcg	accccggtga	240
caccatctcc	cacaccgtca	tctcgctgcc	taccttccgc	gagttcacc	gccctgaaga	300
gatcatcttc	ctccggggcca	tcacgccacc	gcattcctgcc	agccaggcta	acatcatctt	360
cgacatcacg	gaagggaacc	tgcgggactc	ttttgacatc	atcaagcgtt	acatggacgg	420
catgaccgtg	ggtgtcgtgc	gccaggtgcg	gcccacgtg	ggcccatttc	atgccgtcct	480
gaagctggag	atgaactatg	tggtcg				506

<210> 116

<211> 435

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 116

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aaccatccag	catccaccaa	gtaatcgtgc	atcgacagag	acatacagca	ccccagctct	180
gttagcccca	tctgagtcta	atgctaccag	cactgccaac	tttcccaaca	ttcctgtggc	240
ttccacaagt	cagcctgcc	gtatactggg	gggcagccat	agtgaaggac	tggtgcagat	300
agcatcaggg	cctcagccag	gacagcagca	gaatggattt	actggtcagc	cagctactta	360

ccatcataac agcactacca cctggactgg aagtaggact gcaccataca cacctaattt 420
gcctcaccac caaaa 435

<210> 117
<211> 427
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> misc_feature
<222> 371, 404
<223> n = A, T, C, or G.

<400> 117
aattcgcggc cgcgtcgacc ggcggccgag gagcggcgga ctccgggagc ggggagtcga 60
ggcatttgcg cctgggcttc ggagcgtagc gccagggcct gagcctttga agcaggagga 120
ggggaggaga gagggggct cctctatcgg gacccccctc ccatgtggat ctgcccaggc 180
ggcggcggcg gaggaaggca ccgagaagat gcccgccttg cgcggcgctc tgctgtgggc 240
gctgctggcg ctctggctgt gctgcgcgac ccccgcgcat gcattgcagt gtcgagatgg 300
ctatgaaccc tgtgtaaatg aaggaatgtg tgttacctac cacaatggca caggatactg 360
caaagtgtcca naaggcttct tgggggaata ttgtcaacat cganaccctt gtgagaagaa 420
ccgctgc 427

<210> 118
<211> 427
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> misc_feature
<222> 371, 404
<223> n = A,T,C or G

<400> 118
ttaagcgccg gcgcagctgg ccgcccggctc ctccggcctt gagggccgag cccctcagct 60
ccgtaaacgc ggacccgaag cctcgcctcg cgggtcccga ctccgaaact tcgtcctcct 120
cccctcctct ctacccccga ggagatagcc ctgggggagg ggtacaccta gacgggtccg 180
ccgcccggcg ctctcctcgt ggctcttcta cgggcgggac gcggggcgag acgacacccg 240
cgacgaccgc gagaccgaca cgacgcgctg ggggcgcgta cgtaacgtca cagctctacc 300
gatacttggg acacatttac ttccttacac acaatggatg gtgttacctg gtcctatgac 360
gtttacaggt nttccgaaga acccccttat aacagttgta gctntgggga cactcttctt 420
ggcgacg 427

<210> 119
<211> 2780
<212> DNA
<213> Pseudomonas aeruginosa

<400> 119
atgattaaca gtcatttgct ctaccactga gctatcgcg aacgtctttc ttccaaccct 60
ggacgcttcc ggtgttgctg gattcgcgtc tcagaggcgc gccattttac ggatgcgcgc 120
gggcatgtca accctctgat ccaaaaagtt tttcttctt ttccacgagc gacaaaacgg 180
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acaccaccac ttcgtcgatc cggttgatga attccggacg gaagtgcgca ttgaccgcgt 540
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cgaggttga	ggatcatcacc	accacggtgt	tgcggaagtc	caccgtacgc	ccgtgactgt	660
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<210> 120
 <211> 2565
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<220>
 <221> misc_feature
 <222> 371, 404
 <223> n = A,T,C or G

<400> 120						
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ctggacaagt	acaccgtcga	catgaccaag	cgcgccgagg	aaggcaagct	cgacccggtg	540
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aaccggtgc tgatcggcga acccggcgtc ggcaagaccg ccatcgtcga gggcctggcc 660
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gacatggggg cgctgatcgc cggtgccaag ttccgcggcg agttcgagga acgcctgaag 780
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cacaccatgg tcggcgccgg caaggcggaa ggtgccatgg acgccggcaa catgctcaag 900
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ctgattgccg tcggcttcga cccggtctat ggcgcacgcc cgctgaagcg ggccatccag 2460
cgctggatcg agaaccgct ggcgcaactg atcctggccg gcaaattcgc gccgggtgcc 2520
agtatctcgg cgaagggtga aggcgacgag atcgtcttcg cctga 2565

```

<210> 121

<211> 399

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 121

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acgtcggggg cgcattgcta cgcctgcaga atggtttcag ggccttagaa acagaaaagc 60
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cccagacggc tgctagacaa gaaccggcgt aacaccctt cctagcctat gcaactcgcc 180
ccgtagaaaa tgggtgggtcg tgtaggattc gaacctacga ccaattggtt aaaagccaac 240
tgctctaccg actgagctaa cgacccaagt atgagggtgt cggggtagag agattcgaac 300
tcccgcacatc ctgctcccaa agcaggcgcg ctaccggact gcgctatacc ccgattggaa 360
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```

<210> 122

<211> 811

<212> DNA

<213> *Pseudomonas aeruginosa*

<220>

<221> misc_feature

<222> 9, 330, 331, 332, 620, 698, 715, 751, 759, 769, 780, 791, 806, 807

<223> n = A,T,C or G

<221> misc_feature

<222> (0)...(0)

<400> 122

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cagaagcctg gcccaaggag cgctggagaa cgtcaggaag gtggattaca gcggctcccc 180
gcaagcctct gccaaaccga agccatgcgg gcaacctctc gctcgaatgg gtgaagtacc 240
gccgcccggag gccaggacag aacctgcaga accaaggagg cacataccag ggacaggcat 300
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ccaaagcgtg ctgttcactc tgatggctca acacttatcg aaccgtgccg cctcggcatc 420
cgcggctccc gctgcaacaa gcgcatctgg tggatgggga tctactgccc gaagcagtct 480
cgcctagcga taccgatact gaagggccgg ctaccggacg aaaggtagcc gcgcctccca 540
gcagttcgct aggcctgtaa gaaaaatctg gaattaccga gagcgctgg attccagcgc 600
cggcatgctg gcagagcccn cgcagtttca cggccaaaac cgcagtacc tctgtaatcg 660
ctgattacgt cgggggcgca ttgctacgcc tgcagaantg gtttcagggc cttanaaaca 720
gaaaagccca ccttaaatag gcgggctatt nccatatnng acatcacgnt caatgcgggn 780
cctaattgtt nggccagac ggctgnnctg g 811
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<210> 123

<211> 812

<212> DNA

<213> *Pseudomonas aeruginosa*

<220>

<221> misc_feature

<222> 9, 330, 331, 332, 620, 751, 759, 769, 780, 781, 794, 799, 807, 808

<223> n = A,T,C or G

<400> 123

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ccagaccacc atgagctaca tcgaggccga ctacgaccac atgcgtgccg tgctgcatgc 120
cagaagcctg gcccaaggag cgctggagaa cgtcaggaag gtggattaca gcggctcccc 180
gcaagcctct gccaaaccga agccatgcgg gcaacctctc gctcgaatgg gtgaagtacc 240
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cgcggctccc gctgcaacaa gcgcatctgg tggatgggga tctactgccc gaagcagtct 480
cgcctagcga taccgatact gaagggccgg ctaccggacg aaaggtagcc gcgcctccca 540
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cggcatgctg gcagagcccn cgcagtttca cggccaaaac cgcagtacc tctgtaatcg 660
ctgattacgt cgggggcgca ttgctacgcc tgcagaaatg gtttcagggc cttagaaaca 720
gaaaagccca ccctaaatag gcgggctatt nccatatnng acatcacgnt caatgcgggn 780
ncctaattgtt cggnccana cggctgnnct gg 812
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<210> 124

<211> 809

<212> DNA

<213> *Pseudomonas aeruginosa*

<220>

<221> misc_feature

<222> 330, 331, 619, 634, 697, 711, 725, 731, 796

<223> n = A,T,C or G

<400> 124

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ccagaccacc atgagctaca tcgaggccga ctacgaccac atgcgtgccg tgctgcatgc 120
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cagaagcctg	gccaagagag	cgctggagaa	cgtcaggaag	gtggattaca	gcggctcccc	180
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gccgccggag	gccaggacag	aacctgcaga	accaaggag	cacacaccag	ggacaggcat	300
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<210> 125

<211> 828

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 125

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cgatcacatg	cgtagccgtg	tgcatgctag	aagcctggcc	caaggcgcg	tggagaatgt	180
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cggacgaaag	gtagccgtgc	cttcagcag	atcgtaggc	ctgtaggaaa	aatctggaat	600
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caataaccaca	gtaccctctg	taatcgctga	ttacgtcggg	ggcgcatctg	tacgcctgca	720
gaatggtttc	agggccttag	aaacagaaaa	gccacctag	aaaggcgggc	tattccatat	780
tgacatcacg	tcaatgcggg	cctaattgtt	ggccagacg	gctgctag		828

<210> 126

<211> 800

<212> DNA

<213> *Pseudomonas aeruginosa*

<220>

<221> misc_feature

<222> 711, 790, 795

<223> n = A,T,C or G

<400> 126

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agaagccttg	cccaaggcgc	gctggagaat	gtcaggaagg	tggattacag	cggctccccg	180
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caaagcgtgc	tgttcactct	gatggctcaa	cacttatcga	accgtgccgc	cacgacatct	420
gcggctcccc	ccgcaaccag	cggatcttgt	agatggggat	ctgccgcccg	aagcagcctc	480
gcctagcgat	accggtactg	aggggccggc	taccagacga	aaggtagccg	cgctcccag	540
cagatcgctg	ggcctgtagg	aaaaatctgg	aattaccgag	agcgcttga	ttccagcgcc	600
ggcatgctgg	cagagccccg	caatttcacg	gcaaaaccgc	agtaccctct	gtaatcgctg	660
attacgtcgg	gggcacattg	ctacgcctgc	agaatggttt	cagagcctta	naaacagaaa	720
agcccaccta	gataggcggg	ctattccata	ttgacatcac	ggtcaatgcg	gggctaattg	780
tccggcccan	acggnrtgcaa					800

<210> 127
 <211> 501
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 127
 Val Ala Leu Thr Gly Asn Pro Leu Leu Lys Leu Leu Val Val Pro Val
 1 5 10 15
 Val Ile Gly Ala Ile Leu Ile Gly Val Ser Met Met Gly Lys Lys Glu
 20 25 30
 Ser Ala Gln Ser Gln Gly Ala Ala Thr Pro Thr Val Thr Ser Glu Glu
 35 40 45
 Ala Ala Thr Leu Gly Ile Asp Gly Asp Thr Pro Ala Asp Thr Leu Arg
 50 55 60
 Thr Ile Val Ala Glu Ser Arg Gln Leu Lys Asp Gln Ile Ser Lys Val
 65 70 75 80
 Ile Gln Glu Asn Asp Ser Leu Lys Ala Ala Asn Glu Asn Leu Gln Gly
 85 90 95
 Arg Leu Arg Asn Ile Asp Gln Asn Ile Glu Gln Lys Leu Asn Asn Thr
 100 105 110
 Ala Gln Glu Leu Gln Gln Gln Gln Glu Asn Arg Ser Gln Thr Ile Leu
 115 120 125
 Asp Gln Val Gln Lys Arg Leu Glu Asn Leu Thr His Ile Pro Glu Ala
 130 135 140
 Gly Asp Thr Asp Leu Pro Val Gly Phe Gly Val Arg Pro Lys Asp Gly
 145 150 155 160
 Gln His Phe Gln Gly Ala Gly Ser Ser Ser Ser Asp Ile Val Trp Ile
 165 170 175
 Glu Pro Gln Asp Ala Arg Ala Val Asp Ala Asn Gly Gln Pro Leu Ala
 180 185 190
 Ala Gly Ser Thr Thr Gln Pro Ser Gly Phe Ser Phe Pro Thr Ser Phe
 195 200 205
 Gly Asn Ala Val Asp Arg Gly Gln Asn Ala Leu Glu Arg Ile Asp Asp
 210 215 220
 Gly Leu His Pro Val Gly Gln Gln Arg Ser Asp Leu Glu Asn Arg Lys
 225 230 235 240
 Leu Val Arg Lys Thr Tyr Thr Leu Pro Gln Asn Ser Thr Leu Met Gly
 245 250 255
 Ser Val Ala Met Phe Ala Leu Ile Gly Arg Val Pro Val Asp Gly Thr
 260 265 270
 Val Asn Asp Pro Tyr Pro Phe Lys Ile Leu Ile Gly Pro Asp Asn Leu
 275 280 285
 Thr Ala Asn Gly Ile Glu Leu Pro Asp Val Ala Gly Ala Val Ala Ser
 290 295 300
 Gly Thr Ala Ser Gly Asp Trp Thr Leu Ser Cys Val Arg Gly Gln Ile
 305 310 315 320
 Arg Ser Leu Thr Phe Val Phe Asn Asp Gly Thr Val Arg Thr Phe Pro
 325 330 335
 Ala Pro Ala Glu Glu Val Asn Asp Asn Gln Ser Asn Asn Asn Gln Thr
 340 345 350
 Ala Ser Ala Asp Gln Lys Thr Ile Gln Gly Gly Leu Gly Trp Ile Ser
 355 360 365
 Asp Pro Tyr Gly Ile Pro Cys Ile Ala Gly Asp Arg Arg Ser Asn Ala
 370 375 380
 Lys Glu Tyr Leu Gly Asn Gln Ser Leu Leu Thr Ala Ala Gly Ala Gly
 385 390 395 400
 Ile Ala Lys Leu Leu Asp Ala Asp Glu Asn Asn Thr Ser Thr Val Phe
 405 410 415
 Ser Gly Asn Gly Thr Ser Phe Gly Thr Thr Gly Thr Asn Ser Asn Ser

			420					425				430					
Ala	Leu	Asn	Ser	Ile	Leu	Ser	Gly	Gly	Val	Ser	Asp	Ile	Arg	Gln	Trp		
		435					440					445					
Met	Asn	Lys	Leu	Tyr	Gly	Glu	Ala	Phe	Ala	Ala	Val	Tyr	Val	Gln	Pro		
	450					455					460						
Gly	Ala	Arg	Val	Ala	Val	His	Leu	Asp	Gln	Gln	Leu	Ala	Ile	Asp	Tyr		
465					470					475					480		
Glu	Leu	Lys	Gly	Arg	Lys	Val	Asp	Tyr	Ser	Ser	Gly	Ala	Ala	His	Ala		
			485						490					495			
Thr	Ala	Asp	Leu	Asp													
			500														

<210> 128
 <211> 294
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 128

Met	Ile	Arg	Lys	Ser	Thr	Gly	Ser	Leu	Leu	Leu	Met	Leu	Ala	Leu	Pro		
1				5					10					15			
Thr	Leu	Ala	His	Ala	Val	Glu	Ile	Leu	Arg	Trp	Glu	Arg	Ile	Pro	Leu		
		20						25					30				
Ala	Ile	Pro	Leu	Thr	Val	Gly	Gln	Glu	Arg	Ile	Val	Phe	Val	Asp	Arg		
		35					40					45					
Asn	Val	Arg	Val	Gly	Val	Pro	Arg	Asp	Leu	Gln	Gly	Lys	Leu	Arg	Val		
	50				55						60						
Gln	Ser	Thr	Gly	Gly	Ala	Leu	Tyr	Leu	Leu	Ala	Asn	Glu	Pro	Ile	Pro		
65				70					75					80			
Pro	Ala	Arg	Leu	Arg	Leu	Gln	Asp	Ala	Thr	Asn	Gly	Glu	Gln	Met	Leu		
			85					90						95			
Ile	Asp	Ile	Ala	Ala	Thr	Glu	Ala	Thr	Ala	Asp	Gln	Gln	Pro	Arg	Glu		
		100						105						110			
Pro	Val	Arg	Ile	Val	Ala	Gly	Glu	Pro	Val	Asp	Pro	His	Tyr	Gly	Gln		
		115				120					125						
Ser	Arg	Glu	Ala	Gln	Pro	Ser	Ala	Ala	Ala	Lys	Gln	Thr	Glu	His	Ala		
	130				135						140						
Glu	Ala	Pro	Lys	Ala	Val	Pro	Arg	Glu	Thr	Pro	Val	Pro	Val	Val	Leu		
145				150					155					160			
Thr	Arg	Tyr	Ala	Ala	Gln	Met	Leu	Tyr	Ala	Pro	Leu	Arg	Thr	Val	Glu		
			165						170					175			
Pro	Val	Asp	Gly	Val	Gly	Gln	Val	Arg	Val	Lys	Arg	Gln	Leu	Asp	Leu		
		180					185						190				
Thr	Thr	Leu	Leu	Pro	Ser	Leu	Pro	Ile	Thr	Ala	Thr	Ala	Leu	Gly	Ala		
		195				200						205					
Trp	Arg	Leu	Asp	Asp	Tyr	Tyr	Ile	Thr	Ala	Val	Lys	Leu	Gln	Asn	Ala		
	210				215						220						
Ser	Ala	Gln	His	Leu	Ala	Leu	Asp	Pro	Arg	Asp	Leu	Met	Gly	Asn	Phe		
225				230						235				240			
Val	Ala	Ala	Thr	Phe	Gln	His	Pro	Tyr	Leu	Gly	Pro	Arg	Gly	Asp	Ala		
			245						250					255			
Ser	Asp	Thr	Thr	Thr	Val	Tyr	Leu	Val	Thr	Arg	Gly	Arg	Gly	Leu	Ala		
		260					265						270				
Asp	Ala	Leu	Leu	Pro	Ser	Ser	Ile	Ser	Gln	Ile	Asp	Pro	Lys	Gly	Gly		
	275					280						285					
Arg	Arg	Gly	Ala	Asp	Arg												
	290																

<210> 129
 <211> 219
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 129
 Met Ser Phe Arg Lys His Thr Ala Gln Gln Gln Ala His Ile Asn Thr
 1 5 10 15
 Phe Arg Phe Ile Thr Gly Phe Leu Cys Met Val Ile Val Val Leu Ala
 20 25 30
 Tyr Cys Val Trp Glu Ala Arg Lys Asp Leu Trp Ile His Ile Pro Pro
 35 40 45
 Asp Leu Arg Ser Gly Ser Thr Arg Leu Trp Trp Asp Ile Pro Pro Glu
 50 55 60
 Ser Val Tyr Ala Phe Gly Leu Tyr Ile Phe Gln Gln Val Gln Arg Trp
 65 70 75 80
 Pro Lys Asp Gly Glu Val Asp Tyr Lys Gly Asn Leu Phe Arg Tyr Ala
 85 90 95
 Ala Tyr Leu Thr Pro Ser Cys Lys Val Phe Leu Glu Lys Asp Phe Glu
 100 105 110
 Phe Arg Arg Asn Ala Gly Glu Leu Arg Gly Arg Glu Arg Thr Thr Ser
 115 120 125
 Glu Ile Pro Gly Arg Gly Ile Gly Glu Ser Asn Gly Arg Val Ile Gln
 130 135 140
 His Ser Ile Asn Asp Trp Thr Val Asn Leu Asp Met Asp Ser Thr Glu
 145 150 155 160
 Tyr Tyr Ala Gly Glu Lys Ile Lys Arg Ala Leu Ala Arg Tyr Pro Leu
 165 170 175
 His Val Ile Arg Ala Asp Val Asp Pro Glu Thr Asn Pro Phe Gly Leu
 180 185 190
 Gln Trp Asp Cys Tyr Ser Asp Thr Pro Gln Arg Ile Glu Leu Glu Glu
 195 200 205
 Pro Ala Ala Pro Thr Lys Arg Glu Gly Gly Leu
 210 215

<210> 130
 <211> 128
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 130
 Met Pro Glu Glu His Leu Phe Gln Asp Gly Thr Leu Ser Phe Leu Pro
 1 5 10 15
 Thr Arg Leu Asn Arg Gln Pro Val Val Ile Gly Gly Leu Thr Ala Asp
 20 25 30
 Glu Met Trp Ile Thr Val Phe Thr Ser Gly Ala Ala Gly Phe Val Leu
 35 40 45
 Gly Ile Pro Ala Ala Leu Val Ala Gly Asn Ala Ala Cys Ile Pro Leu
 50 55 60
 Gly Ala Leu Leu Val Gly Ala Leu Gly Leu Gly Ile Gly Ser Arg Val
 65 70 75 80
 Leu Arg Arg Met Lys Arg Gly Arg Pro Asp Thr Trp Phe Tyr Arg Gln
 85 90 95
 Val Glu Met Ala Leu Ser Leu Arg Phe Pro Val Phe Gly Asn Arg Arg
 100 105 110
 Leu Val Thr Arg Ser Gly Ala Trp Thr Ser Arg Arg Thr Glu Ser Pro
 115 120 125

<210> 131
 <211> 118
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 131
 Met Leu Lys Leu Thr Leu Gln Lys Leu Ser Ala Leu Cys Gln Ser Leu
 1 5 10 15
 Ala Ala Ile Thr Leu Ala Leu Pro Gly Ile Ala Leu Ala Ala Leu Pro
 20 25 30
 Lys Pro Glu Ala Pro Ser Arg Gly Glu Gly Ser Gly Ile Met Gln Thr
 35 40 45
 Ile Gln Asn Phe Gly Tyr Asp Gly Ala Met Leu Leu Ala Leu Leu Ile
 50 55 60
 Cys Ala Ala Val Phe Leu Gly Val Ala Trp His Thr Tyr Gly Thr Tyr
 65 70 75 80
 His Ala Ile His Asp Gly Lys Lys Lys Trp Ser Asp Leu Gly Ala Gly
 85 90 95
 Val Ala Val Gly Val Gly Leu Leu Ile Leu Ile Ile Tyr Leu Val Thr
 100 105 110
 Lys Ala Thr Ala Ile Met
 115

<210> 132
 <211> 123
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 132
 Met Ser Met Ser Gly Ala Gln Thr Ser Ala Phe Gln Ala Ala Ala Gly
 1 5 10 15
 Phe Pro Pro Ser Ala Gly Glu Gly Leu Phe Ile Gly Ala Ala Met Thr
 20 25 30
 Phe Leu Leu Leu Trp Ser Ala Trp Ala Met Tyr Ser Thr Trp Arg Gly
 35 40 45
 Trp Ala Thr Asn Asn Leu Arg Gln Arg His Arg Trp Arg Phe Arg Asp
 50 55 60
 Pro Gly Ser Trp Ser Ser Ala Ser Pro Leu Ser Ser Ser Ser Ala
 65 70 75 80
 Asp Pro Tyr Gly Asp Thr His Ala Glu Thr His Pro Pro Glu Thr Val
 85 90 95
 Arg Pro Leu Pro Glu Pro Gly Arg His His Phe Gly Ala Pro Arg Tyr
 100 105 110
 Arg Leu Gly Cys Thr Pro Gln Thr Arg Gly Thr
 115 120

<210> 133
 <211> 119
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 133
 Leu Ile Cys Thr Arg Phe Ala Val Asn Thr Pro His Pro Ser Leu Arg
 1 5 10 15
 Arg Ser Cys Leu Ala Val Leu Ala Cys Ser Ala Leu Val Ala Gln Gly
 20 25 30
 Ala Phe Ala Ala Ser Ala Ser Glu Gln Ala Asn Leu Glu Val Met Ile

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 136

Met	Lys	Leu	Ile	Leu	Asp	Phe	Asp	Gly	Arg	Leu	Leu	Asn	Pro	Ser	Asn	
1				5					10						15	
Met	Leu	Glu	Ala	Leu	Ser	Lys	Ala	Gly	Lys	Asn	Thr	Ser	Ile	Ser	Ile	
			20					25					30			
Ser	Asn	Ala	Gln	Ala	Leu	Asn	Ile	Glu	Thr	Leu	Leu	Lys	Ala	Thr	Thr	
		35					40					45				
Thr	Ala	Glu	Asn	Thr	Lys	Asn	Leu	Ser	Thr	Thr	Phe	Asn	Gly	Ala	Glu	
	50					55					60					
Leu	Thr	Ala	Asn	Asn	Leu	Gln	Gln	Val	Ile	Asn	Ser	Ala	Gly	Ser	Leu	
65				70						75					80	
Thr	Arg	Val	Ser	Thr	Ile	Ala	Ala	Gln	Ala	Ile	Asn	Ile	Asn	Thr	Leu	
			85						90					95		
Leu	Ser	Ala	Ile	Ser	Thr	Ala	Gly	Asn	Ser	Lys	Asn	Phe	Ser	Ala	Glu	
		100					105						110			
Phe	Asn	Gly	Ala	Gln	Leu	Ser	Ser	Asp	Asn	Leu	Leu	Arg	Ala	Val	Asn	
	115						120					125				
Ala	Ala	Gly	Thr	Asn	Thr	Ser	Ile	Ser	Val	Asn	Thr	Ala	Gln	Ala	Ala	
	130				135						140					
Asn	Ile	Thr	Ala	Leu	Leu	Gln	Thr	Ile	His	Ala	Ala	Gly	Asp	Thr	Lys	
145				150					155						160	
Thr	Phe	Ser	Ala	Glu	Phe	Asn	Gly	Ala	Gln	Leu	Thr	Ser	Asn	Asn	Ile	
			165					170						175		
Gln	Gln	Ala	Leu	Asp	Ala	Ala	Gly	Thr	Arg	Thr	Ser	Ile	Ser	Val	Asn	
		180					185						190			
Thr	Ala	Gln	Ala	Val	Asn	Ile	Ser	Thr	Leu	Leu	Ala	Leu	Ile	Asn	Ser	
	195						200					205				
Ala	Lys	Asp	Thr	Lys	Lys	Phe	Ser	Ala	Asp	Phe	Asn	Gly	Ala	Gln	Leu	
	210				215						220					
Thr	Ala	Asp	Asn	Leu	Gln	Ala	Ile	Ser	Ala	Ala	Ala	Ser	Gly	Thr		
225				230					235					240		
Asn	Ile	Ser	Val	Asn	Thr	Ala	Gln	Ala	Ala	Asn	Ile	Ser	Thr	Leu	Leu	
			245						250					255		
Gln	Ala	Ile	Asn	Ile	Ala	Gly	Asn	Thr	Lys	Lys	Phe	Ser	Ala	Asn	Phe	
	260						265						270			
Asn	Gly	Ala	Gln	Leu	Thr	Ser	Asn	Asn	Ile	Gln	Gln	Ala	Leu	Arg	Ala	
	275						280					285				
Thr	Gly	Ser	Asn	Thr	Ser	Ile	Ser	Met	Asn	Ser	Ala	Gln	Ser	Ala	Asn	
	290				295						300					
Gln	Ser	Thr	Leu	Leu	Glu	Leu	Leu	Asp	Ile	Ala	Ser	Ser	Ser	Lys	Gln	
305				310						315					320	
Phe	Gln	Ala	Asn	Tyr	Asn	Gly	Gly	Met	Ser	Asn	Pro	Asn	Asn	Leu	Gln	
			325						330					335		
Gln	Ile	Val	Phe	Pro	Cys	Arg	Arg	Gln	Tyr	Asn	Arg	Val	Tyr	Phe	Arg	
	340						345						350			
Arg	Thr	Arg	Pro	Thr	Asn	Arg	Lys	Tyr	Pro	Tyr	Pro	Tyr	Ile	Ile	Cys	
	355						360						365			
Arg	Met	Arg	Leu	Ile	Ala	Val	Asp	Glu	Asn	Thr	Pro	Ser	Thr	Ala	Ile	
	370					375						380				
Pro																
385																

<210> 137

<211> 493

<212> PRT

<213> Pseudomonas aeruginosa

<400> 137

Val	Gln	Trp	Thr	His	Glu	Gln	Ser	Pro	Ile	Ile	Gln	Ser	Lys	Ala	Pro	1	5	10	15
Lys	Ile	Leu	Val	Arg	Ala	Phe	Ala	Gly	Thr	Gly	Lys	Thr	Thr	Thr	Leu	20	25	30	
Val	Gly	Phe	Ala	Arg	Ser	Asn	Pro	Thr	Leu	Arg	Ile	Leu	Tyr	Leu	Cys	35	40	45	
Tyr	Asn	Ser	Ser	Val	Glu	Lys	Ala	Ala	Lys	Gly	Lys	Phe	Pro	Arg	Asn	50	55	60	
Val	Val	Cys	Lys	Thr	Ala	His	Ser	Leu	Ala	His	Ala	Val	Tyr	Gly	Ile	65	70	75	80
Gln	Tyr	Ala	His	Lys	Lys	Thr	Lys	Asn	Leu	Arg	Leu	Thr	Asp	Ile	Ala	85	90	95	
Arg	Gly	Leu	Asp	Thr	Gln	Asp	Trp	Glu	Leu	Val	Arg	Asp	Val	Leu	Ala	100	105	110	
Thr	Leu	Asn	Asn	Tyr	Met	Ala	Ser	Ala	Asp	Ala	Glu	Leu	Gly	Arg	Pro	115	120	125	
His	Phe	Pro	Arg	Phe	Arg	Asp	Lys	Ala	Phe	Leu	Thr	Ser	Ala	Gln	Glu	130	135	140	
Arg	Phe	Leu	Lys	Gln	Gly	Leu	Asp	Met	Ala	Arg	Val	Val	Trp	Arg	Arg	145	150	155	160
Met	Val	Asp	Leu	Gln	Asp	Thr	Gly	Met	Leu	Met	Pro	Leu	Asp	Gly	Tyr	165	170	175	
Leu	Lys	Leu	Tyr	Gln	Leu	Ser	Lys	Pro	Asp	Leu	Ser	Gln	Arg	Phe	Asp	180	185	190	
Cys	Met	Leu	Leu	Asp	Glu	Gly	Gln	Asp	Ile	Asn	Pro	Val	Ile	Ala	Asp	195	200	205	
Ile	Ala	His	Trp	Gln	Arg	Ile	Arg	Met	Ala	Ile	Val	Gly	Asp	Pro	His	210	215	220	
Gln	Gln	Leu	Tyr	Arg	Phe	Arg	Gly	Ala	Glu	Asp	Ala	Leu	Asn	Ser	Asp	225	230	235	240
Trp	Met	Ala	Gly	Ala	Glu	Glu	His	Tyr	Leu	Thr	Gln	Ser	Trp	Arg	Phe	245	250	255	
Gly	Pro	Ala	Ile	Ala	His	Val	Ala	Asn	Ile	Ile	Leu	Ser	Tyr	Lys	Gly	260	265	270	
Glu	Thr	Arg	Lys	Leu	Gln	Gly	Leu	Gly	Pro	Gln	Thr	Leu	Val	Lys	Lys	275	280	285	
Ser	Leu	Pro	Pro	Asp	Leu	Pro	His	Arg	Thr	Phe	Ile	His	Arg	Thr	Val	290	295	300	
Ile	Gly	Val	Ile	Glu	Asn	Ala	Leu	Gln	Leu	Val	Arg	Asn	His	Pro	Glu	305	310	315	320
Pro	Lys	Phe	His	Trp	Val	Gly	Gly	Ile	Asp	Ser	Tyr	Ser	Leu	Arg	Asp	325	330	335	
Leu	Glu	Asp	Leu	Tyr	Ala	Phe	Ser	Arg	Gly	Leu	Arg	Gln	Asn	Val	Gln	340	345	350	
Asn	Lys	Lys	Leu	Leu	Arg	Asp	Tyr	Arg	Asp	Tyr	Thr	Gln	Tyr	Val	Glu	355	360	365	
Ile	Ala	Glu	Ile	Ser	Gln	Asp	Gly	Glu	Met	Leu	Arg	Ser	Ile	Lys	Ile	370	375	380	
Ile	Ser	Thr	Tyr	Pro	Asp	Leu	Pro	Ala	Arg	Ile	Leu	Glu	Leu	Arg	Ser	385	390	395	400
Leu	Thr	Leu	Asp	Asp	Glu	Leu	Asp	Ala	Thr	Ile	Thr	Leu	Thr	Thr	Ala	405	410	415	
His	Lys	Ala	Lys	Gly	Leu	Glu	Trp	Asp	Phe	Val	Cys	Leu	Tyr	Asp	Asp	420	425	430	
Phe	Asn	Ala	Asp	Pro	Leu	Ala	Pro	Asp	Thr	Asp	Pro	Gly	Lys	Arg	Asp	435	440	445	

Asp Glu Leu Asn Leu Ile Tyr Val Ala Val Thr Arg Ala Met Lys Ile
 450 455 460
 Leu Ala Ile Asn Ser Leu Val Leu Ser Ile Met Gln Arg Tyr Val Asp
 465 470 475 480
 Asp Arg Lys Leu Lys Glu Gln Ile Ala Ser Cys Lys Lys
 485 490

<210> 138
 <211> 216
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 138
 Met Phe Gly Ser Leu Ile Gly Ala Ile Ile Val Glu Trp Val Cys Leu
 1 5 10 15
 Tyr Phe Phe Trp Pro Asp Ala Gly Trp Lys His Ala Gln Ala Met Phe
 20 25 30
 Glu Tyr Glu Leu Ser Trp Leu Ser Gln Gly Leu Leu His Ser Val Val
 35 40 45
 Val Gln Glu Pro Gly Arg Thr Ala Thr Trp Leu Ala Gln Leu Ala Tyr
 50 55 60
 Asp Trp Leu Phe Val Lys Thr Gly Met Val Asp Trp Met Thr Asn Met
 65 70 75 80
 Thr Thr Ile Ala Gln Ala Arg Pro Arg Ser Pro Leu Asp Val Arg Tyr
 85 90 95
 Leu Thr Ala His Gly Val Ser Thr Leu Gln Asn Tyr Gly Leu Ala Ala
 100 105 110
 Leu Tyr Thr Val Leu Thr Phe Val Val Arg Leu Val Ile Leu Val Met
 115 120 125
 Thr Ile Pro Leu Phe Val Met Ala Ala Phe Thr Gly Leu Val Asp Gly
 130 135 140
 Leu Val Arg Arg Asp Leu Arg Lys Phe Gly Ala Gly Arg Glu Ser Ser
 145 150 155 160
 Tyr Leu Tyr His Lys Ala Arg Gly Ser Ile Ile Pro Leu Ala Val Val
 165 170 175
 Pro Trp Thr Leu Tyr Leu Ala Ile Pro Ile Ser Ile Asn Pro Leu Leu
 180 185 190
 Ile Leu Leu Pro Cys Ala Ala Leu Leu Gly Val Ala Val Cys Ile Thr
 195 200 205
 Ala Ser Thr Phe Lys Lys Tyr Leu
 210 215

<210> 139
 <211> 931
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 139
 Met Lys Leu Lys Asn Phe Leu Gln Pro Phe Asp Ser Gly Phe Ser Thr
 1 5 10 15
 Pro Ser Ala Ala Leu Lys Leu Leu Arg Met Leu Gly Gly Ala Leu Met
 20 25 30
 Leu Cys Val Leu Cys Ser Leu Ile Phe Ser Val Ser Met Val Leu Asn
 35 40 45
 His Gln Val Ser Leu Ser Arg Gln Ala Met Asn Val Ala Met Tyr Glu
 50 55 60
 Ala Gln Leu Tyr Phe Glu Gln Arg Glu Ala Leu Leu Asn His Leu Ser

65					70					75					80
Gly	Asn	Val	Val	Pro	Leu	Ala	Ala	Gly	Arg	Ala	Leu	Val	Asn	Glu	Ala
				85					90					95	
Pro	Asn	Asn	Val	Ser	Ile	Leu	Pro	Leu	Ser	Asp	Gly	Gly	Arg	Gly	Leu
			100					105					110		
Leu	Leu	Thr	Ala	Arg	Thr	Leu	Gly	Asp	Leu	Arg	Glu	Lys	Arg	Leu	Ala
		115					120					125			
Leu	Met	Tyr	Leu	Val	Asp	Thr	Asp	Lys	Gly	Pro	Leu	Val	Tyr	Arg	Leu
	130					135					140				
Thr	Ala	Asp	Gly	Arg	Pro	Ser	Ala	Ala	Ile	Ser	Ser	Thr	Ile	Thr	Lys
145					150					155					160
Glu	Val	Tyr	Arg	Ala	Leu	Leu	Ala	Thr	Pro	Ser	Ala	Pro	Val	His	Trp
				165					170					175	
Val	Thr	Asp	Gly	Gly	Thr	Pro	Gln	Arg	Leu	Tyr	Leu	Phe	Glu	Ser	Leu
			180					185					190		
Gly	Asp	Glu	Pro	Gly	Glu	Gly	Trp	Leu	Gly	Leu	Glu	Ile	Leu	Gly	Glu
		195					200					205			
Asp	Leu	Asp	Ser	Met	Leu	Arg	Arg	Asn	Asp	Ala	Gly	Asn	Tyr	Met	Leu
	210					215					220				
Leu	Asp	Gln	His	Gly	Gln	Val	Val	Leu	Ala	Thr	Asp	Ala	Glu	Ala	Leu
225					230				235						240
Gly	Ser	Gly	Ala	Ser	Arg	Thr	Leu	Leu	Arg	Gly	Asp	Gly	Phe	Gly	Phe
				245					250					255	
Ile	Gly	Ala	Gly	Pro	Leu	Pro	Gln	His	Met	Val	Leu	Phe	Gln	His	Val
			260					265					270		
Gly	Ser	Ser	Ser	Trp	Asp	Leu	Ile	Tyr	His	Ile	Gly	Ile	Gly	Arg	Leu
		275				280						285			
Leu	Leu	Ala	Leu	Trp	Leu	Pro	Leu	Leu	Leu	Ala	Ser	Ala	Leu	Ala	Leu
	290					295					300				
Ala	Val	Gly	Ile	Leu	Leu	His	Trp	Leu	Val	Arg	Ser	Ile	Glu	Arg	Arg
305					310					315					320
Leu	Ile	Glu	Pro	Ala	Lys	Arg	Arg	Leu	Glu	Ala	Leu	Lys	Glu	Ser	Glu
				325					330						335
Ala	Phe	Ser	Arg	Ala	Val	Ile	Gln	Ala	Ala	Pro	Val	Ala	Leu	Cys	Val
			340					345					350		
Leu	Arg	Arg	Ala	Asp	Ala	Ala	Val	Val	Leu	Glu	Asn	Pro	Gln	Ala	Arg
		355					360					365			
Gln	Trp	Leu	Gly	Asp	Ser	Glu	Ala	Ile	Ala	His	Asp	Ala	Pro	Arg	Trp
	370					375					380				
Ile	Ser	Gln	Ala	Phe	Ala	Gly	Gly	Val	Lys	Cys	Ser	Gly	Glu	Glu	Leu
385					390					395					400
Glu	Thr	Glu	Ala	Gly	Leu	His	Leu	His	Leu	Asn	Tyr	Thr	Pro	Thr	Arg
				405					410					415	
Tyr	Asn	Gly	Glu	Asp	Val	Leu	Phe	Cys	Ala	Phe	Ser	Glu	Ile	Ser	Ala
			420				425						430		
Arg	Lys	Arg	Met	Glu	Ala	Glu	Leu	Ala	Arg	Ala	Lys	Ser	Leu	Ala	Asp
		435					440					445			
Ala	Ala	Asn	Glu	Ala	Lys	Thr	Leu	Phe	Leu	Ala	Thr	Met	Ser	His	Glu
	450					455					460				
Ile	Arg	Thr	Pro	Leu	Tyr	Gly	Met	Leu	Gly	Thr	Leu	Glu	Leu	Leu	Gly
465					470					475					480
Arg	Thr	Glu	Leu	Ser	Arg	Gln	Gln	Ala	Gly	Tyr	Leu	Lys	Ala	Ile	Gln
				485					490					495	
His	Ser	Ser	Ser	Thr	Leu	Leu	Gln	Leu	Ile	Ser	Asp	Val	Leu	Asp	Val
			500					505					510		
Ser	Lys	Ile	Glu	Ala	Gly	Gln	Leu	Asp	Leu	Glu	Cys	Val	Glu	Phe	Ser
		515					520					525			
Pro	Leu	Glu	Leu	Thr	Glu	Glu	Val	Val	Gln	Ser	Phe	Thr	Gly	Ala	Ala
	530					535					540				

Gln	Ala	Lys	Gly	Leu	Gln	Leu	Tyr	Thr	Cys	Leu	Ser	Ala	Glu	Leu	Pro
545					550					555					560
Leu	Arg	Met	Arg	Gly	Ala	Ala	Ala	Ser	Ile	Arg	Gln	Ile	Leu	Asn	Asn
				565					570					575	
Leu	Leu	Ser	Asn	Ala	Val	Lys	Phe	Thr	Asp	Asn	Gly	Tyr	Val	Asn	Val
			580					585					590		
His	Leu	Lys	Ala	Ser	Val	Val	Asp	Ala	Glu	Cys	Val	Met	Leu	Thr	Trp
		595					600					605			
Gln	Val	Asn	Asp	Thr	Gly	Met	Gly	Ile	Asn	Val	Glu	Asp	Gln	Pro	Arg
	610					615					620				
Leu	Phe	Glu	Pro	Phe	Tyr	Gln	Ile	Arg	Arg	Ser	Glu	His	Pro	Val	Ala
625					630					635					640
Gly	Thr	Gly	Leu	Gly	Leu	Ser	Ile	Ser	Gln	Arg	Leu	Ala	Gln	Leu	Met
				645					650					655	
Asn	Gly	Ser	Leu	Lys	Leu	Val	Ser	Glu	Leu	Gly	Leu	Gly	Ser	Ser	Phe
			660					665					670		
Ser	Leu	Arg	Leu	Pro	Leu	Glu	Arg	Ile	Ala	Met	Gln	Ala	Glu	Pro	Gln
		675					680					685			
Asp	Leu	Ala	Gly	Cys	Ala	Val	Gln	Val	Leu	Ala	Pro	Val	Arg	Asp	Leu
	690					695					700				
Thr	Glu	Cys	Leu	Cys	Gly	Trp	Ile	Ser	Arg	Trp	Gly	Gly	Arg	Ala	Met
705					710					715					720
Val	Ala	Thr	Pro	Arg	Ser	Leu	Asp	Glu	Ala	Asp	Ala	Thr	Ser	Leu	Leu
				725					730					735	
Val	Lys	Val	Leu	Leu	Glu	Gly	Ala	Pro	Met	Phe	Glu	Ala	Trp	Pro	
			740				745					750			
Gly	Cys	Arg	Val	Glu	Leu	Ser	Pro	Gln	Gly	Asp	Met	Glu	Pro	Gln	Ala
		755					760					765			
Gln	Gly	Arg	Asp	Trp	Leu	Leu	Gly	Leu	Asn	Asn	Leu	Asn	Gly	Leu	His
	770				775						780				
Arg	Ala	Leu	Gly	Leu	Ala	His	Gly	Arg	Leu	Ala	Asp	Pro	Ser	Thr	Pro
785					790					795					800
Pro	Ile	Arg	Leu	Ala	Pro	Leu	Arg	Asn	Leu	Gly	Leu	Arg	Val	Leu	Val
				805					810					815	
Val	Glu	Asp	Asn	Ala	Ile	Asn	Gln	Leu	Ile	Leu	Arg	Asp	Gln	Met	Glu
			820					825					830		
Ala	Leu	Gly	Cys	Ser	Val	Glu	Leu	Leu	Phe	Asp	Gly	Arg	Glu	Ala	Leu
		835					840					845			
Leu	His	Cys	Gln	Thr	Ala	Cys	Phe	Asp	Val	Val	Leu	Thr	Asp	Ile	Asn
	850					855					860				
Met	Pro	Asn	Met	Asn	Gly	Tyr	Glu	Leu	Thr	Ala	Glu	Leu	Arg	Arg	Gln
865					870					875					880
Gly	Phe	Arg	Gln	Pro	Ile	Ile	Gly	Ala	Thr	Val	Asn	Ala	Met	Arg	Glu
				885				890						895	
Glu	Arg	Glu	Arg	Cys	Met	Ser	Ala	Gly	Met	Asn	Asp	Cys	Leu	Val	Lys
			900					905					910		
Pro	Val	Asp	Leu	Asn	Ala	Leu	Gln	Asn	Cys	Leu	Ile	Asn	Ile	Leu	Lys
		915					920						925		
Val	Asp	Arg													
	930														

<210> 140

<211> 399

<212> PRT

<213> Pseudomonas aeruginosa

<400> 140

Met Ser Trp Lys Ser Tyr Arg Val Leu Val Val Glu Asp Gln Pro Phe

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Gln	Arg	Glu	Tyr	Leu	Leu	Asn	Leu	Phe	Arg	Glu	Arg	Gly	Val	Gln	Tyr
		20						25					30		
Leu	Val	Gly	Ala	Gly	Asp	Gly	Ala	Glu	Ala	Leu	Arg	Cys	Leu	Lys	Gln
		35					40					45			
Asp	Arg	Phe	Asp	Leu	Ile	Leu	Ser	Asp	Leu	Met	Met	Pro	Gly	Met	Asp
	50					55					60				
Gly	Ile	Gln	Met	Ile	Leu	Gln	Leu	Pro	Tyr	Leu	Lys	His	Arg	Pro	Lys
65				70						75					80
Leu	Ala	Leu	Met	Ser	Ser	Ser	Ser	Gln	Arg	Met	Met	Leu	Ser	Ala	Ser
				85					90					95	
Arg	Val	Ala	Gln	Ser	Leu	Gly	Leu	Ser	Val	Ile	Asp	Leu	Leu	Pro	Lys
		100						105					110		
Pro	Thr	Leu	Pro	Lys	Ala	Ile	Gly	Gln	Leu	Leu	Glu	His	Leu	Glu	Arg
		115					120					125			
Cys	Leu	Arg	Gln	Lys	Leu	Glu	Pro	Glu	Thr	Asp	Glu	Thr	Pro	His	Gly
	130					135					140				
Arg	Thr	Ala	Leu	Leu	Asp	Ala	Leu	His	Asn	Glu	Gln	Leu	Val	Thr	Trp
145				150						155					160
Phe	Gln	Ala	Lys	Lys	Ser	Leu	His	Thr	Gly	Arg	Ile	Val	Gly	Ala	Glu
			165						170					175	
Ala	Leu	Ile	Arg	Trp	Ser	His	Pro	Gln	His	Gly	Leu	Leu	Leu	Pro	Ser
		180						185					190		
Cys	Phe	Met	Ser	Asp	Val	Asp	Ala	Thr	Gly	Leu	His	Glu	Ala	Leu	Leu
	195					200						205			
Trp	Arg	Val	Leu	Glu	Gln	Thr	Leu	Asn	Ala	Gln	Glu	Ser	Trp	Arg	Arg
	210					215					220				
Ala	Gly	Tyr	Glu	Ile	Pro	Val	Ser	Val	Asn	Leu	Pro	Pro	His	Leu	Leu
225				230						235					240
Asp	Asn	Gln	Glu	Leu	Pro	Asp	Arg	Leu	Tyr	Glu	Tyr	Val	Gly	Ala	Arg
			245						250					255	
Gly	Ala	Cys	Thr	Ser	Ser	Leu	Cys	Phe	Glu	Leu	Thr	Glu	Ser	Ser	Val
		260						265					270		
Thr	Thr	Leu	Ser	Ser	Asn	Tyr	Tyr	Ala	Gly	Ala	Cys	Arg	Leu	Arg	Met
	275					280						285			
Lys	Gly	Phe	Gly	Leu	Ala	Gln	Asp	Asp	Phe	Gly	Gln	Gly	Tyr	Ser	Ser
	290					295					300				
Phe	Tyr	Asn	Leu	Val	Thr	Thr	Pro	Phe	Thr	Glu	Leu	Lys	Ile	Asp	Arg
305				310						315					320
Ser	Leu	Val	Gln	Gly	Cys	Val	Glu	Asp	Asn	Gly	Leu	Asn	Ala	Ala	Val
			325						330					335	
Ile	Ser	Cys	Ile	Glu	Leu	Gly	His	Arg	Leu	Asn	Leu	Asp	Val	Val	Ala
		340						345					350		
Glu	Gly	Val	Glu	Thr	Cys	Glu	Glu	Leu	Asn	Leu	Leu	Arg	Arg	Leu	Gly
		355				360						365			
Cys	Asp	Arg	Ala	Gln	Gly	Phe	Leu	Ile	Ser	Lys	Ala	Val	Ser	Ala	Arg
	370					375					380				
Glu	Phe	Glu	Arg	Gln	Leu	Arg	Glu	Asp	Gly	Pro	Ser	Leu	Leu	Val	
385				390						395					

<210> 141

<211> 1084

<212> PRT

<213> Pseudomonas aeruginosa

<400> 141

Val	Lys	Ser	Ala	Ser	Ala	Leu	Glu	His	Asp	Asn	Lys	Leu	Leu	Leu	Lys
1				5					10					15	

Trp	Thr	Thr	Leu	Ser	Gln	Ser	Leu	Ser	Ile	Gly	Leu	Ile	Cys	Val	Val
			20					25					30		
Val	Leu	Thr	Val	Leu	Leu	Phe	Ser	Ile	Cys	Tyr	Trp	Ser	Leu	Gly	Arg
		35					40					45			
Leu	Phe	Gln	Glu	Glu	Glu	Asp	Lys	Val	Ser	Phe	His	Phe	Thr	Arg	Met
	50					55					60				
Met	Asp	Val	Ile	Arg	Glu	His	Glu	Val	Phe	Leu	Gly	Arg	Ile	Ala	Arg
65					70					75					80
Lys	Ser	Asp	Lys	Thr	Thr	Gln	Lys	Tyr	Asp	Tyr	Asp	Val	Val	Pro	Leu
			85						90					95	
Gln	Arg	His	Leu	Leu	Ala	Lys	Glu	Asn	Gly	Leu	Ala	Val	Tyr	Glu	Gly
			100					105					110		
Arg	Glu	Phe	Ser	Phe	Ala	Met	Pro	Phe	Leu	Leu	Ala	Thr	Lys	His	Ala
		115				120						125			
Leu	Ser	Ala	Asp	Ser	Ser	Gly	Asp	Pro	Phe	Ser	Leu	Gly	Val	Leu	Leu
	130					135					140				
Ala	Asn	Phe	Tyr	Gly	Ser	Phe	Trp	Ser	Val	Ser	Ala	Tyr	Pro	Ala	Pro
145					150					155					160
Gln	Leu	Leu	Ile	Phe	Asp	Leu	Ser	Gly	Ser	Thr	Arg	Leu	Ala	Val	Pro
				165					170					175	
Ser	Ile	Pro	Ser	Thr	Ala	Gln	Arg	Asp	Arg	Leu	Ser	Gly	Ser	Tyr	Pro
			180					185					190		
Met	Ile	Val	Glu	Arg	Ile	Leu	Ala	Arg	Leu	Arg	Thr	Arg	Pro	Val	Gly
		195					200					205			
Glu	Asp	Ala	Gln	Arg	Val	His	Trp	Ile	Arg	Ala	Asp	Arg	Tyr	Arg	Asp
	210					215					220				
Ser	Ala	Leu	Glu	Met	Leu	Gly	Val	Ala	Arg	Val	Asp	Leu	Pro	Glu	Thr
225					230					235					240
Leu	Trp	Trp	His	Asp	Glu	Pro	Asn	His	Leu	Ile	Ile	Ala	Ala	Ser	Leu
				245					250					255	
Leu	Asp	Leu	Arg	Arg	Ile	Asn	Asp	Phe	Glu	Gln	Leu	Val	Glu	Arg	Pro
			260					265					270		
Ala	Phe	Asp	Ser	Tyr	Ser	Leu	Val	Ser	Pro	Asp	Gly	Glu	Val	Leu	Leu
		275					280					285			
Gly	Ala	Ala	Pro	Ala	Thr	Gly	Leu	Arg	Asp	Gly	Leu	Asn	Leu	Thr	Arg
	290					295					300				
Gln	Gly	Val	Ala	Val	Gln	Leu	Leu	Ser	Gln	Pro	Glu	Asn	Gly	Trp	Leu
305					310					315					320
Ala	Val	Tyr	Arg	Thr	Asp	Tyr	Gly	Asn	Phe	Phe	Arg	His	Ser	Arg	Trp
				325				330					335		
Leu	Val	Ala	Gly	Leu	Leu	Leu	Thr	Pro	Ala	Leu	Leu	Leu	Ala	Gly	Trp
			340					345					350		
Leu	Gly	Met	Arg	Trp	Tyr	Thr	Ser	Ser	Val	Val	Asn	Pro	Val	His	Arg
		355					360					365			
Ala	His	Arg	Gln	Leu	Val	Glu	Ser	Asp	Thr	Phe	Ser	Arg	Thr	Leu	Ile
	370					375					380				
Gln	Thr	Ala	Pro	Val	Ala	Leu	Val	Val	Leu	Thr	Gln	Asp	Asp	Gln	Gln
385					390					395					400
Leu	Val	Thr	Cys	Asn	His	Leu	Ala	Ala	Gln	Trp	Leu	Gly	Gly	Pro	Thr
				405					410					415	
Glu	Ile	Leu	Gly	Leu	Thr	Ser	Asn	Trp	Lys	Leu	Phe	Asp	Ala	Arg	Gly
			420					425					430		
Gln	Val	Pro	Gly	Asp	Ile	Cys	Ile	Gln	Val	Gly	Gly	Arg	Tyr	Leu	Gln
		435					440					445			
Thr	Ala	Phe	Ala	Ala	Thr	Arg	Tyr	Ala	Gly	Thr	Glu	Ala	Val	Leu	Cys
	450					455					460				
Val	Phe	Asn	Asp	Ile	Thr	Val	His	Cys	Glu	Ala	Glu	Thr	Ala	Leu	Ser
465					470					475					480
Asn	Ala	Lys	Arg	Ala	Ala	Asp	Ala	Ala	Ser	Gln	Ala	Lys	Thr	Leu	Phe

				485					490				495		
Leu	Ala	Arg	Met	Ser	His	Glu	Ile	Arg	Thr	Pro	Leu	Tyr	Gly	Val	Leu
			500					505					510		
Gly	Thr	Leu	Glu	Leu	Leu	Asp	Leu	Thr	Thr	Leu	Asn	Glu	Arg	Gln	Arg
		515					520					525			
Ala	Tyr	Leu	Arg	Thr	Ile	Gln	Ser	Ser	Ser	Ala	Thr	Leu	Met	Gln	Leu
	530					535					540				
Ile	Ser	Asp	Val	Leu	Asp	Val	Ser	Lys	Ile	Glu	Ala	Gly	Gln	Met	Ala
545					550					555					560
Leu	Thr	Leu	Ala	Ala	Phe	Asn	Pro	Leu	Asp	Leu	Val	Arg	Glu	Val	Leu
				565					570					575	
Gly	Asn	Phe	Ala	Ala	Ser	Ala	Met	Ala	Lys	Asp	Leu	Gln	Phe	Tyr	Ala
			580					585					590		
Cys	Ile	Asp	Thr	Glu	Val	Pro	Ala	Gln	Leu	Ile	Gly	Asp	Val	Thr	Arg
	595					600						605			
Ile	Arg	Gln	Val	Leu	Asn	Asn	Leu	Val	Asn	Asn	Ala	Leu	Lys	Phe	Thr
	610					615					620				
Asp	Ile	Gly	Arg	Val	Val	Leu	Arg	Val	Lys	Leu	Leu	Ser	Arg	Asn	Asp
625					630					635					640
Gly	Arg	Ala	Leu	Leu	Gln	Trp	Gln	Val	Ala	Asp	Thr	Gly	Ile	Gly	Ile
				645					650					655	
Ala	His	Glu	Gln	Gln	Glu	Arg	Leu	Phe	Glu	Ala	Phe	Tyr	Gln	Val	Ser
			660					665					670		
Gly	Ala	His	His	Ala	Gly	Gly	Thr	Gly	Leu	Gly	Leu	Ser	Ile	Cys	Trp
	675						680					685			
His	Leu	Ala	Glu	Met	Met	Gly	Gly	His	Leu	Arg	Met	Val	Ser	Glu	Thr
	690					695					700				
Gly	Leu	Gly	Ser	Ser	Phe	Ser	Leu	Val	Leu	Glu	Leu	Pro	Glu	Asp	Glu
705					710					715					720
Gln	Ser	Gly	Leu	Ala	Cys	Arg	Pro	Gly	Leu	Leu	Lys	Ser	Ala	Cys	Val
				725					730					735	
His	Val	Arg	Ser	Pro	Val	Arg	Glu	Leu	Ala	Asp	Ser	Val	Gly	Ala	Trp
			740					745					750		
Leu	Lys	Ala	Trp	Gly	Cys	Lys	Val	Ser	Ser	Gly	Glu	Ala	Ala	Pro	Ser
		755					760					765			
Glu	Leu	Glu	Thr	Cys	Val	Leu	Leu	Glu	Leu	Leu	Pro	Met	Ala	Ala	Gly
	770					775					780				
Pro	Ala	Ser	Ser	Pro	Trp	Pro	Gly	Pro	Arg	Val	Arg	Ala	Ser	Met	Asp
785					790					795					800
Ala	Pro	Cys	Gln	Pro	Glu	Leu	Arg	Glu	Asp	Gly	Trp	Arg	Val	Gly	Leu
				805					810					815	
His	Asn	Leu	Ala	Gly	Ile	Gly	Gln	Ala	Leu	Ala	Gln	Ala	Leu	Gly	Gly
			820					825					830		
Asp	Ile	Pro	Glu	Gln	Thr	Pro	Ala	Asn	Ala	Cys	Ala	Arg	Ser	Gly	Arg
	835						840					845			
Leu	Asp	Leu	Glu	Val	Leu	Val	Ala	Glu	Asp	Asn	Pro	Val	Asn	Gln	Ala
	850					855					860				
Leu	Leu	Arg	Glu	Gln	Leu	Glu	Glu	Leu	Gly	Cys	Arg	Val	Ser	Leu	Ala
865					870					875					880
Gly	Asp	Gly	Arg	Gln	Ala	Leu	Gln	Leu	Phe	Asp	Ser	Gly	Arg	Phe	Asp
				885					890					895	
Leu	Leu	Leu	Ser	Asp	Val	Asn	Met	Pro	Asn	Met	Thr	Gly	Tyr	Glu	Leu
			900					905					910		
Thr	Gln	Ala	Leu	Arg	Glu	Arg	Gly	Glu	Thr	Leu	Pro	Ile	Ile	Gly	Val
		915					920					925			
Thr	Ala	Asn	Ala	Leu	Arg	Glu	Glu	Gly	Glu	Arg	Cys	Arg	Ala	Val	Gly
	930					935					940				
Met	Asn	Ser	Trp	Leu	Val	Lys	Pro	Ile	Thr	Leu	His	Thr	Leu	His	Glu
945					950					955					960

Leu Leu Ser Glu Phe Ala Arg Ala Gly Val Val Leu Pro Ala Gln Ala
 965 970 975
 Arg Asp Leu Gly Pro Pro Ala Gln Leu Asp Asp Gly Leu Ser Pro Gln
 980 985 990
 Val Pro Glu Arg Met Arg Ala Leu Phe Leu Glu Thr Met Gly Lys Asp
 995 1000 1005
 Leu Glu Ala Ala Arg Gln Ala Ile Arg Arg Asn Asp Pro Lys Gly Leu
 1010 1015 1020
 Gln Gln Asp Leu His Arg Met Ala Gly Ser Leu Ala Val Met Arg Ala
 1025 1030 1035 1040
 Arg Thr Leu Val Val Met Cys Gln Gly Ala Glu Glu Gly Leu Leu Glu
 1045 1050 1055
 Ser Arg Leu Glu Cys Ser Ala Val Glu Ile Gly Glu Val Leu Val His
 1060 1065 1070
 Ile Glu Gln Ala Leu Glu Phe Val Arg Lys Thr Gly
 1075 1080

<210> 142
 <211> 231
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 142
 Met Arg Pro Gly Ser Ile Val Gly Ile Arg Thr Gln Glu Lys Pro Met
 1 5 10 15
 Ser Lys Leu Lys Ile Val Leu Ala Asp Asp His Pro Ile Val Arg Met
 20 25 30
 Gly Val Cys Asp Met Leu Glu Arg Asp Gly Arg Phe Glu Val Val Gly
 35 40 45
 Glu Ala Ser Thr Pro Ser Glu Leu Val Glu Val Cys Arg Gln Ser Glu
 50 55 60
 Pro His Ile Ala Ile Thr Asp Tyr Ser Met Pro Gly Asp Glu Arg Tyr
 65 70 75 80
 Gly Asp Gly Leu Lys Leu Ile Asp Tyr Leu Leu Arg Asn Phe Pro Arg
 85 90 95
 Thr Lys Val Leu Ile Phe Thr Met Val Gly Asn Arg Leu Ile Leu Asp
 100 105 110
 Ser Leu Tyr Asp His Gly Val Ser Gly Val Val Leu Lys Ser Gly Glu
 115 120 125
 Leu Asp Glu Leu Leu Leu Ala Leu Asp Val Val Lys Gln Asn Arg Val
 130 135 140
 Tyr Arg Gly Ala Asn Met Leu Asp Pro Thr Ser Val Leu Ala Asn Arg
 145 150 155 160
 Asp Glu Val Glu Ser Arg Phe Ala Arg Leu Ser Met Lys Glu Phe Glu
 165 170 175
 Val Leu Arg His Phe Val Ser Gly Ser Asn Val Cys Asp Ile Ala Arg
 180 185 190
 Leu Leu Lys Arg Ser Val Lys Thr Val Ser Thr Gln Lys Val Ser Ala
 195 200 205
 Met Arg Lys Leu Glu Val Asn Ser Asp Gln Ala Leu Met Thr Phe Cys
 210 215 220
 Val His Ala Asn Leu Phe His
 225 230

<210> 143
 <211> 238
 <212> PRT

<213> Pseudomonas aeruginosa

<400> 143

Val	Ser	Ser	Lys	Ile	Leu	Leu	Gln	Gly	Ala	Leu	Leu	Gly	Leu	Ala	Met
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Leu	Ala	Val	Leu	Asp	Ala	Arg	Ala	Gly	Val	Thr	Ala	Glu	Arg	Thr	Arg
			20					25					30		
Ala	Ile	Ile	Ala	Glu	Gly	His	Arg	Glu	Thr	Ser	Leu	Leu	Leu	Val	Asn
		35					40					45			
Gln	Asn	Ala	Tyr	Pro	Val	Ile	Val	Gln	Thr	Trp	Ile	Asp	Asp	Gly	Ala
	50					55					60				
Pro	Asn	Ser	Thr	Pro	Gln	Ser	Ala	Arg	Ala	Pro	Ile	Met	Pro	Leu	Pro
65					70					75				80	
Pro	Val	Phe	Arg	Leu	Glu	Pro	Gly	Gln	Gln	Arg	Ser	Leu	Arg	Leu	Leu
				85					90					95	
Arg	Thr	Gly	Gln	Ala	Leu	Pro	Gly	Asp	Arg	Glu	Ser	Leu	Tyr	Trp	Leu
			100					105						110	
Asn	Leu	Tyr	Glu	Ile	Pro	Pro	Gln	Ala	Thr	Gly	Leu	Leu	Ala	Glu	Gly
		115					120					125			
Gln	Ser	Arg	Leu	Thr	Val	Thr	Leu	Arg	Thr	Gln	Met	Lys	Val	Ile	Tyr
	130					135					140				
Arg	Pro	Arg	Pro	Leu	Ala	Arg	Gly	Ala	Glu	Glu	Ala	Pro	His	Gln	Leu
145					150					155					160
Arg	Phe	Glu	Arg	Arg	Gly	Glu	Thr	Leu	Gln	Met	Glu	Asn	Pro	Thr	Pro
				165					170					175	
Tyr	Phe	Ile	Ser	Leu	Ala	Gly	Ala	Glu	Leu	Gly	Gly	His	Thr	Arg	Leu
			180					185					190		
Ala	Ala	Ala	Glu	Leu	Leu	Pro	Pro	Phe	Ser	Arg	Arg	Val	Leu	Ala	Leu
		195					200					205			
Arg	Gln	Ala	Leu	Pro	Gly	Gly	Gln	Ala	Glu	Val	Arg	Phe	Ser	Trp	Ile
	210					215					220				
Asp	Asp	Gly	Gly	Asn	Leu	Gln	Gln	Gly	Arg	Ser	Leu	Leu	His		
225					230					235					

<210> 144

<211> 448

<212> PRT

<213> Pseudomonas aeruginosa

<400> 144

Met	Lys	Thr	Ser	Leu	Arg	Val	Leu	Pro	Leu	Leu	Leu	Ala	Leu	Leu	Ala
1				5					10					15	
Ser	Ser	Ser	Trp	Ala	Thr	Cys	Tyr	Lys	Val	Thr	Ala	Val	Gly	Asn	Ala
			20					25					30		
Thr	Thr	Thr	Ser	Asn	Thr	Gln	Ile	Arg	Pro	Gly	Glu	Gly	Ser	Ala	Gly
		35					40					45			
Thr	Trp	Ala	Gly	Ala	Cys	Asp	Thr	Cys	Asn	Gly	Ser	Leu	Gly	Leu	Pro
	50					55					60				
Ser	Val	Ile	Asn	Val	Ser	Asp	Ala	Ser	Phe	Gln	Pro	Asp	Gly	Ser	Leu
65					70					75				80	
Ile	Ala	Ser	Ser	Val	Ala	Pro	Leu	Ser	Gln	Tyr	Gly	Asp	Ser	Ala	Gly
				85					90					95	
Tyr	Asp	Pro	Glu	Arg	Val	Phe	Phe	Arg	Cys	Ala	Pro	Glu	Asp	Asp	Val
			100					105					110		
Tyr	Glu	Met	Phe	Ser	Thr	Asn	Ala	Asp	Asp	Leu	Tyr	Ser	Gly	Trp	Tyr
		115					120					125			
Leu	Gly	Gly	Asp	Ser	Ala	Gly	Asn	Ser	Ile	Gly	Leu	Gln	Ser	Ala	Tyr
	130					135						140			

Arg	Thr	Ala	Trp	Pro	Asn	Val	Leu	Leu	Arg	Leu	Thr	His	Val	Glu	Thr
145					150					155					160
Gly	Gln	Tyr	Phe	Thr	Asp	Val	Trp	Arg	Glu	Arg	Leu	Leu	Gly	Gly	Leu
				165					170					175	
Asp	Ile	Asp	Ser	Arg	Gly	Phe	Gln	Leu	Val	Lys	Ala	Lys	Asn	Leu	Ser
			180					185					190		
Ala	Val	Arg	Ala	Glu	Leu	Phe	Arg	Ala	Pro	Leu	Glu	Phe	Ile	Arg	Tyr
		195					200					205			
Tyr	Ser	Pro	Thr	Thr	Ala	Ser	Arg	Leu	Tyr	Ala	Tyr	Thr	Gln	Pro	Ala
	210					215					220				
Gly	Tyr	Ile	Ala	Ile	Lys	Gly	Pro	Gly	Leu	Ala	Tyr	Pro	Asn	Val	Gly
225					230					235					240
Ala	Ser	His	Asn	Ala	Asn	Tyr	Leu	Gly	Trp	His	Tyr	Asn	Trp	Pro	Gly
			245						250					255	
Ala	Ile	Gly	Leu	Tyr	Asn	Asp	Val	Thr	Leu	Lys	Arg	Tyr	Pro	Thr	Cys
			260					265					270		
Ser	Val	Thr	Asn	Val	Thr	Pro	His	Val	Val	Phe	Pro	Ser	Ile	Ser	Leu
		275					280					285			
Ser	Glu	Ile	Asn	Ala	Gly	Ala	Asn	Arg	Glu	Met	Pro	Phe	Glu	Val	Ala
	290					295					300				
Phe	Lys	Cys	Gln	Thr	Gly	Val	Ile	Asn	Ser	Thr	Ala	Ser	Ser	Gly	Thr
305					310					315					320
Ala	Leu	Gly	Ile	Arg	Ala	Ser	Ala	Gly	Ala	Gln	Ala	Ala	Ser	Ala	Ala
				325					330					335	
Leu	Gly	Leu	Arg	Asn	Ala	Asn	Gly	Gly	Leu	Ser	Tyr	Leu	Val	Ser	Asp
			340					345					350		
Arg	Tyr	Gly	Gln	Pro	Gly	Met	Ala	Gln	Gly	Val	Gly	Ile	Arg	Leu	Leu
		355					360					365			
Arg	Asp	Gly	Ser	Ala	Met	Asn	Leu	Leu	Val	Ser	Glu	Asp	Ser	Ala	Met
	370					375					380				
Gly	Ser	Asn	Ala	Glu	Thr	Arg	Gly	Trp	Tyr	Pro	Val	Ile	Gly	Asn	Ala
385					390					395					400
Ser	Asn	Lys	Thr	Gly	Glu	Ala	Gly	Gly	Ile	Ser	Gln	Tyr	Ser	Glu	Thr
				405					410					415	
Phe	Arg	Ala	Arg	Leu	Glu	Lys	Leu	Thr	Val	Gly	Ser	Met	Pro	Ser	Val
			420					425					430		
Thr	Pro	Gly	Arg	Val	Glu	Ala	Ser	Ala	Gln	Val	Val	Ile	Arg	Val	Gln
		435					440					445			

<210> 145

<211> 870

<212> PRT

<213> Pseudomonas aeruginosa

<400> 145

Met	Phe	Cys	His	Val	Glu	Ala	Arg	Arg	Thr	Gly	Lys	Leu	Pro	Leu	Ala
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Leu	Gly	Gly	Leu	Ala	Leu	Ala	Phe	Ala	Gly	Leu	Ala	Asn	Gly	Glu	Ala
			20					25					30		
Gln	Tyr	Arg	Phe	Asp	Asp	Ser	Leu	Met	Gly	Ser	Gly	Leu	Ala	Gly	
		35					40				45				
Gly	Thr	Leu	Glu	Arg	Phe	Asn	Arg	Ala	Asn	Gln	Val	Asp	Pro	Gly	Thr
	50					55					60				
Tyr	His	Val	Asp	Val	Tyr	Leu	Asn	Gly	Ser	Tyr	Ala	Ser	Arg	Thr	Arg
65					70				75					80	
Ile	Glu	Phe	Arg	Pro	Arg	Ala	Gly	Gly	Val	Lys	Pro	Cys	Phe	Gly	Glu
				85					90					95	
Arg	Phe	Leu	Arg	Arg	Thr	Leu	Gly	Val	Arg	Pro	Ala	Ser	Glu	Ala	Gly

Val	Gln	Ala	Pro	Gly	Asp	Cys	Leu	Gly	Leu	Glu	Glu	Arg	Leu	Pro	Gly
		115					120					125			
Ser	Thr	Phe	Asn	Leu	Asp	Thr	Ala	Leu	Leu	Arg	Leu	Asp	Leu	Ser	Val
	130					135					140				
Pro	Gln	Ala	Leu	Leu	Asp	Ile	Lys	Pro	Arg	Gly	Tyr	Val	Gly	Pro	Asp
145					150					155					160
Glu	Trp	Asp	Ala	Gly	Ser	Ser	Met	Gly	Phe	Val	Asn	Tyr	Asp	Ala	Ser
			165						170					175	
Phe	Tyr	Arg	Ser	Ser	Phe	Asp	Gly	Val	Gly	Gly	Asn	Gly	Asp	Ser	Asp
		180						185					190		
Tyr	Gly	Tyr	Leu	Gly	Leu	Ser	Gly	Gly	Ile	Asn	Phe	Gly	Leu	Trp	Arg
	195						200					205			
Leu	Arg	His	Gln	Ser	Asn	Tyr	Ser	Tyr	Ser	Ser	Tyr	Ala	Gly	Asn	Thr
210						215					220				
Arg	Ser	Asp	Trp	Asn	Ser	Ile	Arg	Thr	Tyr	Ala	Gln	Arg	Ala	Val	Pro
225					230					235					240
Gly	Leu	Arg	Ser	Glu	Leu	Thr	Leu	Gly	Glu	Ser	Phe	Thr	Glu	Gly	Asn
				245					250					255	
Leu	Phe	Gly	Ser	Leu	Gly	Tyr	Arg	Gly	Val	Arg	Leu	Ala	Ser	Asp	Asp
		260						265					270		
Arg	Met	Leu	Ala	Asp	Ser	Gln	Arg	Arg	Tyr	Ala	Pro	Gln	Val	Arg	Gly
	275						280					285			
Thr	Ala	Asn	Ser	Asn	Ala	Arg	Val	Val	Ile	Ser	Gln	Asn	Gly	Lys	Lys
290						295					300				
Val	His	Glu	Ser	Ala	Val	Ala	Pro	Gly	Pro	Phe	Val	Ile	Asn	Asp	Leu
305					310					315					320
Tyr	Gly	Thr	Ala	Tyr	Asp	Gly	Asp	Leu	Asp	Val	Gln	Val	Ile	Glu	Ala
				325					330					335	
Asp	Gly	Ser	Val	Ser	Arg	Phe	Ser	Val	Pro	Phe	Ser	Ala	Val	Pro	Glu
		340						345					350		
Ser	Met	Arg	Pro	Gly	Ile	Ser	Arg	Tyr	Ser	Ala	Thr	Leu	Gly	Gln	Ala
	355						360					365			
Arg	Gln	Tyr	Gly	Asp	Gly	Asn	Asp	Leu	Phe	Gly	Asp	Phe	Thr	Tyr	Gln
	370					375					380				
Arg	Gly	Leu	Thr	Asn	Ser	Leu	Thr	Ala	Asn	Leu	Gly	Ser	Arg	Leu	Ala
385					390					395					400
Glu	Asp	Tyr	Leu	Ala	Leu	Leu	Gly	Gly	Gly	Val	Leu	Ala	Thr	Pro	Tyr
				405					410					415	
Gly	Ala	Phe	Gly	Phe	Asn	Ser	Ile	Phe	Ser	His	Ala	Thr	Val	Glu	Asn
		420						425					430		
Gly	Gln	Arg	Lys	Gln	Gly	Trp	Arg	Val	Gly	Leu	Asn	Tyr	Ser	Arg	Thr
		435					440					445			
Phe	Gln	Pro	Thr	Gln	Thr	Thr	Leu	Thr	Leu	Ala	Gly	Tyr	Arg	Tyr	Ser
	450					455					460				
Thr	Glu	Gly	Tyr	Arg	Asp	Leu	Gly	Asp	Ala	Leu	Ser	Ala	Arg	His	Ala
465					470					475					480
Asp	Glu	His	Asn	Asp	Ser	Trp	Asn	Ser	Ser	Ser	Tyr	Lys	Gln	Arg	Asn
				485					490					495	
Gln	Phe	Thr	Leu	Val	Asn	Gln	Gly	Leu	Gly	Gly	Tyr	Gly	Asn	Leu	
		500					505					510			
Tyr	Leu	Ser	Gly	Ala	Thr	Ser	Asp	Tyr	Tyr	Asp	Gly	Lys	Ser	Arg	Asp
	515						520					525			
Thr	Gln	Leu	Gln	Phe	Gly	Tyr	Ser	Asn	Thr	Trp	Arg	Gln	Leu	Ser	Tyr
	530					535					540				
Asn	Leu	Ala	Tyr	Ser	Arg	Gln	Gln	Thr	Thr	Trp	Tyr	Arg	Asp	Leu	Asn
545					550					555					560
Asp	Asp	Tyr	Asp	Pro	Ser	Leu	Pro	Pro	Gln	Tyr	Asn	Leu	Arg	His	Gly
				565					570					575	

Ser Glu Arg Ser Asn Thr Leu Thr Leu Thr Leu Ser Met Pro Leu Gly
 580 585 590
 Ser Ser Ser Gln Ala Pro Asn Leu Ser Ala Met Ala Ser Arg Arg Ser
 595 600 605
 Gly Asp Ser Arg Gly Ser Ser Tyr Gln Thr Gly Leu Asn Gly Thr Leu
 610 615 620
 Asp Glu Asp Arg Ser Leu Ser Tyr Ala Ile Ala Gly Arg Asp Ser
 625 630 635 640
 Asp Asn His Gly Ser Asp Phe Asn Gly Ser Leu Gln Lys Gln Thr Ser
 645 650 655
 Val Ala Thr Leu Asn Ala Gly Tyr Ala Glu Asn Ser Ser Tyr Arg Gln
 660 665 670
 Leu Asn Thr Gly Leu Arg Gly Ala Ala Val Leu His Arg Gly Gly Leu
 675 680 685
 Thr Leu Gly Pro Tyr Val Gly Asp Thr Phe Ala Leu Val Glu Ala Lys
 690 695 700
 Gly Ala Ser Gly Ala Gly Val Arg Gly Gly Gln Gly Ala Arg Val Asn
 705 710 715 720
 Gly Asn Gly Tyr Ala Val Val Pro Ser Leu Ser Pro Tyr Arg Tyr Asn
 725 730 735
 Pro Val Ser Leu Asp Pro Gln Gly Met Gly Glu Glu Ala Glu Leu Leu
 740 745 750
 Glu Thr Glu Arg Lys Ile Ala Pro Tyr Ala Gly Ala Val His Val
 755 760 765
 Lys Phe Arg Thr Leu Thr Gly His Pro Leu Leu Ile Gln Ala Gln Leu
 770 775 780
 Ala Asp Gly Ser Ala Leu Pro Leu Gly Ala Asn Val Leu Asp Ser Gln
 785 790 795 800
 Gly Val Asn Ile Gly Met Val Gly Gln Gly Gly Gln Val Tyr Ala Arg
 805 810 815
 Ala Glu Gly Asp Lys Gly Arg Leu Arg Val Gln Trp Ser Glu Arg Pro
 820 825 830
 Gly Asp Ala Cys Leu Leu Asp Tyr Asp Leu Asp Thr Gly Pro Arg Gln
 835 840 845
 Ala Ile Glu Pro Gly Gln Ala Val Ile Arg Leu Gln Gly Thr Cys Thr
 850 855 860
 Pro Val Ser Glu Ala Pro
 865 870

<210> 146

<211> 248

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 146

Met Asn Thr Phe Pro Leu Pro Pro Leu Arg Ala Ala Thr Leu Ala Leu
 1 5 10 15
 Ala Leu Leu Ile Pro Ala Ile Pro Ala Gln Ser Ser Val Val Ile Ile
 20 25 30
 Gly Thr Arg Val Ile Tyr Pro Gly Asp Ala Arg Glu Lys Thr Val Gln
 35 40 45
 Met Ile Asn Gln Asp Ala Phe Pro Asn Val Ile Gln Ala Trp Ile Asp
 50 55 60
 Asn Asp Asp Pro Ser Ser Thr Pro Glu Thr Ala Asn Ala Pro Phe Leu
 65 70 75 80
 Val Ser Pro Ala Val Thr Arg Ile Ala Pro Gly Ser Gly Gln Thr Leu
 85 90 95
 Arg Leu Leu Tyr Thr Gly Leu Pro Leu Pro Glu Asp Arg Glu Ser Leu

			100					105				110			
Phe	His	Leu	Asn	Val	Leu	Gln	Ile	Pro	Pro	Arg	Asp	Leu	Ala	Lys	Ala
		115					120					125			
Glu	Arg	Asn	Gln	Met	Leu	Leu	Met	Gln	Arg	Ser	Arg	Leu	Lys	Leu	Phe
	130					135					140				
Tyr	Arg	Pro	Ala	Ala	Leu	Leu	Gly	Gly	Ser	Glu	Gln	Leu	Val	Glu	Gln
145					150					155					160
Leu	His	Phe	Ser	Leu	Val	Gln	Ala	Ser	Gly	Asn	Trp	Arg	Val	Arg	Val
			165						170					175	
Asp	Asn	Pro	Ser	Gly	Tyr	Tyr	Ala	Ser	Phe	Ala	Gly	Ala	Met	Leu	Ser
			180					185					190		
Ile	Gly	Glu	Arg	Arg	Trp	Arg	Leu	Leu	Ser	Ser	Met	Val	Pro	Pro	Lys
	195						200					205			
Gly	Gln	Ala	Glu	Trp	Ala	Ala	Glu	Arg	Pro	Ser	Pro	Leu	Ala	Pro	Gly
	210					215					220				
Pro	Val	Gln	Leu	Asn	Ala	Leu	Leu	Ile	Asn	Asp	Tyr	Gly	Ala	Arg	Met
225				230						235					240
Glu	Val	Gln	His	Val	Leu	Pro	Arg								
				245											

<210> 147
 <211> 182
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 147

Met	Lys	Pro	Gln	Ser	Thr	Ala	Leu	Thr	Ile	Ala	Ala	Phe	Leu	Ala	Leu
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Pro	Gly	Ile	Ala	Ala	Ala	Ala	Asn	Thr	Ile	Thr	Phe	His	Gly	Glu	Val
		20					25					30			
Thr	Asp	Gln	Thr	Cys	Ser	Ala	Val	Val	Asp	Gly	Arg	Thr	Asp	Pro	Thr
	35						40					45			
Val	Ile	Leu	Asp	Thr	Val	Pro	Val	Ser	Ala	Leu	Asp	Gly	Ala	Val	Gly
	50				55						60				
Lys	Pro	Ala	Gly	Glu	Thr	Ser	Phe	Thr	Leu	Gln	Leu	Thr	Gly	Cys	Ala
65				70					75					80	
Ala	Pro	Ala	Ala	Asp	Ala	Glu	Glu	His	Phe	Ser	Val	Met	Phe	Gln	Ala
			85					90					95		
Val	Asn	Pro	Thr	Ser	Ala	Gly	Asn	Leu	Thr	Asn	Thr	Ala	Ser	Ala	Gly
		100					105						110		
Ala	Thr	Gly	Val	Ala	Leu	Gln	Leu	Leu	Thr	Ala	Pro	Gly	Gly	Ser	Glu
	115					120						125			
Val	Asn	Leu	Ala	Gly	Gly	Ser	Ala	Val	Ala	Ala	Gly	Asp	Ile	Val	Leu
	130				135						140				
Ala	Gly	Gly	Glu	Thr	Ser	Thr	Ser	Tyr	Asp	Tyr	Ala	Val	Arg	Tyr	Ile
145				150					155					160	
Ser	Glu	Ala	Thr	Thr	Val	Thr	Pro	Gly	Pro	Val	Leu	Gly	Ser	Val	Thr
			165					170						175	
Tyr	Thr	Leu	Arg	Tyr	Glu										
			180												

<210> 148
 <211> 248
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 148

Met	Ala	Glu	Val	Thr	Gln	Arg	Ala	Glu	Gln	Gln	Gln	Glu	Ser	Gln	Lys
1				5					10					15	
Thr	Leu	Leu	Gly	Thr	Ile	Ile	Ser	Thr	Pro	Phe	Gln	Phe	Leu	Gly	Val
			20					25					30		
Met	Phe	Gly	Ser	Leu	Ile	Gly	Ala	Ile	Ile	Val	Glu	Trp	Val	Cys	Leu
	35					40					45				
Tyr	Phe	Phe	Trp	Pro	Asp	Ala	Gly	Trp	Lys	His	Ala	Gln	Ala	Met	Phe
	50				55					60					
Glu	Tyr	Glu	Leu	Ser	Trp	Leu	Ser	Gln	Gly	Leu	Leu	His	Ser	Val	Val
65				70					75					80	
Val	Gln	Glu	Pro	Gly	Arg	Thr	Ala	Thr	Trp	Leu	Ala	Gln	Leu	Ala	Tyr
			85					90						95	
Asp	Trp	Leu	Phe	Val	Lys	Thr	Gly	Met	Val	Asp	Trp	Met	Thr	Asn	Met
			100					105					110		
Thr	Thr	Ile	Ala	Gln	Ala	Gly	Pro	Arg	Ser	Pro	Leu	Asp	Val	Arg	Tyr
	115					120						125			
Leu	Thr	Ala	Gln	Gly	Val	Ser	Thr	Leu	Gln	Asn	Tyr	Gly	Leu	Ala	Ala
	130				135						140				
Leu	Tyr	Thr	Val	Leu	Thr	Phe	Val	Val	Arg	Leu	Val	Ile	Leu	Val	Met
145				150					155					160	
Thr	Ile	Pro	Leu	Phe	Val	Met	Ala	Ala	Phe	Thr	Gly	Leu	Val	Asp	Gly
			165					170						175	
Leu	Val	Arg	Arg	Asp	Leu	Arg	Lys	Phe	Gly	Ala	Gly	Arg	Glu	Ser	Ser
		180					185					190			
Tyr	Leu	Tyr	His	Lys	Ala	Arg	Gly	Ser	Ile	Ile	Pro	Leu	Ala	Val	Val
	195					200					205				
Pro	Trp	Thr	Leu	Tyr	Leu	Ala	Ile	Pro	Ile	Asn	Ile	Asn	Pro	Leu	Leu
	210				215					220					
Ile	Leu	Leu	Pro	Cys	Ala	Ala	Leu	Leu	Gly	Val	Ala	Val	Cys	Ile	Thr
225				230					235					240	
Ala	Ser	Thr	Phe	Lys	Lys	Tyr	Leu								
			245												

<210> 149
 <211> 744
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 149

Met	Ala	Gly	Gln	Tyr	Pro	Leu	Glu	Ala	Leu	Leu	Arg	Pro	Ala	Val	Glu
1				5					10					15	
Leu	Tyr	Thr	Thr	Thr	Val	Cys	Phe	Thr	Ala	Ala	Ala	Leu	Cys	Ile	Val
			20					25					30		
Ala	Pro	Trp	Thr	Phe	Ser	Leu	Thr	Pro	Leu	Phe	Gly	Ile	Val	Ala	Ala
	35					40					45				
Leu	Cys	Phe	Ala	Trp	Leu	Gly	Ile	Val	Arg	Leu	Lys	Gln	Ala	Gly	Val
	50				55				60						
Val	Leu	Arg	Tyr	Arg	Arg	Asn	Ile	Arg	Arg	Leu	Pro	Lys	Tyr	Thr	Met
65				70					75					80	
Thr	Ser	Ala	Glu	Met	Pro	Val	Ser	Asn	Glu	His	Leu	Phe	Ile	Gly	Lys
			85					90						95	
Gly	Phe	Arg	Trp	Thr	Gln	Lys	His	Thr	Gln	Arg	Leu	Ala	Asp	Thr	Tyr
		100					105						110		
Leu	Pro	Gln	Phe	Ala	Ser	Tyr	Val	Glu	Pro	Ser	Pro	Leu	Tyr	Glu	Arg
	115					120						125			
Ala	Arg	Arg	Leu	Glu	Lys	Gln	Leu	Glu	Phe	Ala	Pro	Phe	Pro	Leu	Lys
	130				135						140				
Leu	Val	Ala	Lys	Ala	Thr	Ala	Trp	Asp	Val	Ala	Trp	Asn	Pro	Ala	Arg

145					150					155				160
Pro	Leu	Pro	Pro	Val	Gly	Gly	Leu	Pro	Arg	Leu	His	Gly	Ile	Glu
				165					170					175
Arg	Glu	Gln	Asp	Val	Gly	Leu	Gln	Leu	Gly	Glu	Arg	Val	Gly	His
			180					185					190	
Leu	Val	Leu	Gly	Thr	Thr	Arg	Val	Gly	Lys	Thr	Arg	Leu	Ala	Glu
		195					200					205		Leu
Phe	Ile	Thr	Gln	Asp	Ile	Arg	Arg	Thr	His	Cys	Arg	Val	Arg	Arg
	210					215					220			
Arg	Val	Lys	Met	Gly	Arg	Arg	Thr	Gln	Thr	Val	His	His	Gly	Tyr
225					230					235				240
Arg	Arg	Arg	Ala	Glu	Glu	Gln	Pro	Asp	Tyr	Glu	Val	Val	Ile	Val
			245						250					255
Asp	Pro	Lys	Gly	Asp	Ala	Asp	Leu	Leu	Lys	Arg	Met	Tyr	Val	Glu
			260					265					270	Cys
Glu	Arg	Ala	Gly	Arg	Leu	Asp	Glu	Phe	Tyr	Val	Phe	His	Leu	Gly
		275					280					285		His
Pro	Asp	Leu	Ser	Ala	Arg	Tyr	Asn	Ala	Val	Gly	Arg	Phe	Gly	Arg
	290					295					300			Ile
Ser	Glu	Val	Ala	Thr	Arg	Val	Ala	Gly	Gln	Leu	Ser	Gly	Glu	Gly
305					310					315				320
Ser	Ala	Ala	Phe	Arg	Glu	Phe	Ala	Trp	Arg	Phe	Val	Asn	Ile	Ile
			325						330					335
Arg	Ala	Leu	His	Ala	Leu	Gly	Ile	Arg	Pro	Asp	Tyr	Gln	Gln	Ile
			340					345					350	Leu
Arg	His	Val	Val	Asn	Ile	Asp	Ala	Leu	Phe	Val	Glu	Tyr	Ala	Gln
		355				360						365		Lys
Tyr	Ile	Ser	Glu	His	Asp	Pro	Arg	Ala	Trp	Asp	Thr	Ile	Ile	Gln
	370				375						380			Ile
Glu	Gly	Lys	Leu	Asn	Asp	Lys	Asn	Ile	Pro	Phe	Asn	Met	Lys	Gly
385				390						395				400
Pro	Leu	Arg	Val	Val	Ala	Ile	Asp	Gln	Tyr	Leu	Thr	Gln	Lys	Arg
			405						410					Ile
Ala	Asp	Pro	Val	Met	Glu	Gly	Leu	Lys	Ser	Ala	Val	Arg	Tyr	Asp
			420					425					430	Lys
Thr	Tyr	Phe	Asp	Lys	Ile	Val	Ala	Ser	Leu	Leu	Pro	Leu	Leu	Glu
		435				440						445		Lys
Leu	Thr	Thr	Gly	Arg	Ile	Ser	Glu	Leu	Leu	Ser	Pro	Asn	Tyr	Ala
	450					455					460			Asp
Leu	Asn	Asp	Pro	Arg	Pro	Ile	Phe	Asp	Trp	Met	Gln	Val	Ile	Arg
465					470				475					Lys
Arg	Ala	Val	Val	Tyr	Val	Gly	Leu	Asp	Ala	Leu	Ser	Asp	Thr	Glu
			485						490					Val
Ala	Ala	Ala	Val	Gly	Asn	Ser	Met	Phe	Ser	Asp	Leu	Val	Ser	Val
			500					505				510		Ala
Gly	His	Ile	Tyr	Lys	His	Gly	Val	Asp	Asp	Gly	Leu	Pro	Gly	Ser
	515						520					525		Leu
Ala	Ser	Gly	Lys	Val	Arg	Ile	Asn	Leu	His	Ala	Asp	Glu	Phe	Asn
	530					535					540			Glu
Leu	Ile	Gly	Asp	Glu	Phe	Ile	Pro	Met	Val	Asn	Lys	Ala	Gly	Gly
545					550					555				Ala
Gly	Val	Gln	Val	Thr	Ala	Tyr	Thr	Gln	Thr	Met	Ser	Asp	Ile	Glu
			565						570					Ala
Lys	Ile	Gly	Ser	Arg	Ala	Lys	Ala	Gly	Gln	Ile	Ile	Gly	Asn	Phe
			580					585					590	Asn
Asn	Leu	Phe	Met	Leu	Arg	Val	Arg	Glu	Thr	Ala	Thr	Ala	Glu	Leu
		595				600					605			Leu
Thr	Asn	Gln	Leu	Pro	Lys	Val	Gln	Ile	Tyr	Thr	Ser	Thr	Pro	Ala
	610					615					620			Ser

Gly	Ala	Asn	Asp	Ala	Ile	Asn	Asn	Asn	Lys	Lys	Val	Ala	Phe	Thr	Ser
625					630					635					640
Ser	Ser	His	Asp	Gln	Val	Gln	Met	Thr	Ser	Val	Pro	Met	Leu	Glu	Pro
				645					650					655	
Ala	His	Ile	Ile	Gly	Leu	Pro	Lys	Gly	Gln	Ala	Phe	Ala	Leu	Leu	Glu
			660					665					670		
Gly	Gly	Asn	Leu	Trp	Lys	Ile	Arg	Met	Pro	Leu	Pro	Ala	Val	Ala	Pro
		675					680					685			
Asp	Glu	Val	Met	Pro	Lys	Ser	Leu	Gln	Glu	Leu	Ala	Ala	Gly	Met	Arg
	690					695					700				
Lys	Gly	Gln	Ala	Ala	Asn	Ser	Glu	Trp	Trp	Glu	Ala	Pro	Gly	Tyr	Ser
705					710					715					720
Ala	Leu	Gln	Asp	Gly	Leu	Pro	Gln	Asp	Leu	Val	Asp	Asp	Phe	Arg	His
			725						730					735	
Leu	Gly	Thr	Gly	Glu	Asp	Ala	Ala								
			740												

<210> 150
 <211> 85
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 150

Met	Thr	Thr	His	Leu	Ile	Thr	Leu	Val	Ile	Lys	Gln	Pro	Ser	Asp	Ala
1				5					10					15	
Gln	Ala	Arg	Gln	Leu	Met	Tyr	Gln	Glu	Leu	Leu	Gly	Leu	Ile	Ser	Arg
			20					25					30		
Tyr	Gly	Gly	Glu	Val	Thr	Ser	Lys	Ala	Leu	Glu	Asp	Glu	Ser	Thr	Leu
		35					40					45			
Cys	Glu	Leu	Leu	Val	Gln	Met	Leu	Pro	Asp	His	Glu	Val	Glu	Gln	Ala
	50					55					60				
Arg	Lys	Gln	Val	Leu	Glu	Leu	His	Ala	Lys	Gly	Arg	Leu	Gln	Ala	Pro
65				70						75					80
Ala	Ser	Leu	Lys	Val											
				85											

<210> 151
 <211> 166
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 151

Met	Lys	Lys	Phe	Leu	Ala	Thr	Leu	Ala	Phe	Cys	Thr	Ala	Phe	Ala	Thr
1				5					10					15	
Gln	Ala	Trp	Ala	Ala	Gly	Leu	Ile	Val	Val	Glu	Asp	Leu	Gly	Gly	Ala
			20					25					30		
Ser	Ala	Leu	Pro	Tyr	Tyr	Gln	Gly	Leu	Asp	Pro	Gln	Pro	Ser	Ala	Ser
		35					40					45			
Ala	Pro	Gly	Pro	Gly	Asp	Leu	Gly	Val	Arg	Gly	Ser	Gly	Ala	Phe	Pro
	50					55					60				
Val	Arg	Ser	Ala	Arg	Leu	Ser	Pro	Gly	Arg	Val	Gln	Gly	Arg	Ala	Ile
65					70					75					80
Asn	Ala	Pro	Gly	Leu	Gln	Leu	Leu	Phe	Leu	Val	Gly	Asp	Asp	Thr	Leu
				85					90					95	
Ser	Arg	Thr	Trp	Leu	Lys	Glu	Arg	Gly	Asp	Glu	Leu	Arg	Asp	Leu	Gln
			100					105					110		
Ala	Val	Gly	Leu	Ala	Val	Asn	Val	Ala	Ser	Glu	Ala	Arg	Leu	Thr	Glu

		115					120				125						
Ile	Arg	Ala	Trp	Gly	Lys	Gly	Leu	Gln	Ile	Leu	Pro	Ala	Pro	Ala	Asp		
	130					135					140						
Asp	Leu	Val	Asp	Arg	Leu	Gly	Leu	Gln	His	Tyr	Pro	Ala	Leu	Ile	Thr		
145					150					155					160		
Ser	Thr	Ala	Ile	Gln	Gln												
				165													

<210> 152
 <211> 193
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 152

Met	Ala	Thr	Ser	Val	Val	Arg	Ala	Leu	Gln	Leu	Ala	Thr	Leu	Leu	Val		
1				5					10					15			
Leu	Val	Asn	Ile	Ala	Gln	Ala	Ala	Val	Asp	Pro	Pro	Pro	Ala	Tyr	Lys		
		20						25					30				
Gln	Ile	Ala	Leu	Pro	Lys	Gly	Val	Pro	Ala	Glu	Val	Leu	Tyr	Ser	Val		
	35					40						45					
Ala	Leu	Thr	Glu	Ser	Lys	Val	Leu	Leu	Arg	Gly	Glu	Tyr	Val	Pro	Trp		
50					55					60							
Pro	Trp	Thr	Leu	Asn	Val	Ala	Gly	Lys	Ser	Tyr	Tyr	Tyr	Ala	Thr	Arg		
65				70					75						80		
Thr	Ala	Ala	Cys	Thr	Ala	Leu	Leu	Ala	Ala	Ile	Asn	Leu	Tyr	Gly	Ala		
			85						90					95			
Lys	Ser	Val	Asp	Ser	Gly	Leu	Gly	Gln	Val	Asn	Ile	Gly	Trp	Asn	Gly		
		100						105					110				
His	Arg	Phe	Ser	Ser	Pro	Cys	Glu	Ser	Leu	Asp	Pro	Tyr	Lys	Asn	Leu		
	115					120						125					
Asp	Ala	Thr	Ser	Asp	Ile	Leu	Ile	Glu	Gln	Arg	Asp	Ala	Leu	Tyr	Ala		
130						135					140						
Ser	Ala	Pro	Gly	Arg	Pro	Val	Asp	Trp	Ile	Gln	Val	Ala	Gly	Arg	Tyr		
145				150					155						160		
His	Arg	Pro	Ala	Gly	Gly	Ala	Pro	Ala	Ala	Lys	Tyr	Arg	Arg	Thr	Val		
			165					170						175			
Ser	Arg	His	Leu	Ser	Gln	Val	Leu	Gly	Val	Asn	Leu	Leu	Val	Thr	Asn		
			180					185					190				

Pro

<210> 153
 <211> 251
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 153

Met	Ile	Arg	Thr	Val	Ser	Leu	Leu	Ser	Gly	Leu	Met	Leu	Leu	Leu	Ser		
1				5					10					15			
Tyr	Pro	Ala	Ala	Gly	Gln	Glu	Ala	Ala	Ala	Ser	Arg	Glu	Ala	Ser	Ser		
		20						25					30				
Gln	Leu	Ser	Gly	Ser	Gln	Leu	Gly	Thr	Leu	Lys	Gln	Gln	Thr	Ser	Gln		
	35					40						45					
Ser	Asp	Leu	Ala	Gln	Glu	Trp	Gly	Leu	Asn	Gln	Gln	Glu	Trp	Thr	Arg		
50					55					60							
Tyr	Gln	Thr	Leu	Met	Gln	Gly	Pro	Arg	Gly	Ala	Tyr	Ser	Pro	Gly	Ile		
65				70					75						80		

Asp	Pro	Leu	Thr	Ala	Leu	Gly	Ile	Glu	Ala	Arg	Ser	Ala	Glu	Glu	Arg
				85					90					95	
Arg	Arg	Tyr	Ala	Asp	Leu	Gln	Val	Gln	Ala	Glu	Arg	Arg	Arg	Val	Glu
			100					105					110		
Lys	Glu	Leu	Ala	Tyr	Gln	Arg	Ala	Tyr	Asp	Glu	Ala	Phe	Ala	Arg	Ala
		115					120					125			
Tyr	Pro	Gly	Glu	Gly	Val	Ile	Arg	Leu	Thr	Glu	Ser	Ser	Thr	Ala	Asn
	130					135					140				
Pro	Ser	Gly	Thr	Pro	Asn	Met	Ser	Pro	Ala	Leu	Gln	Ser	Ser	Gly	Arg
145					150					155					160
Leu	Ala	Leu	Phe	Val	Gln	Asp	Asn	Cys	Thr	Ala	Cys	Ile	Gln	Arg	Val
			165						170					175	
Arg	Asp	Leu	Gln	His	Ala	Glu	Lys	Glu	Phe	Asp	Leu	Tyr	Phe	Val	Gly
		180						185					190		
Ser	Gln	Asn	Asp	Ala	Glu	Arg	Val	Arg	Arg	Trp	Ala	Ile	Leu	Ala	Gly
	195						200					205			
Ile	Asp	Pro	Lys	Lys	Val	Arg	Ser	Lys	Gln	Ile	Thr	Leu	Asn	His	Asp
	210					215					220				
Glu	Gly	Arg	Trp	Met	Ala	Leu	Gly	Leu	Gly	Gly	Ala	Leu	Pro	Ala	Leu
225					230				235						240
Val	Gln	Glu	Val	Asn	Gly	Arg	Trp	Gln	Arg	Leu					
				245					250						

<210> 154

<211> 229

<212> PRT

<213> Pseudomonas aeruginosa

<400> 154

Met	Lys	Arg	Pro	Ser	Pro	Ala	Ser	Met	Ile	Leu	Gly	Leu	Cys	Leu	Thr
1				5					10					15	
Ala	Met	Ala	Gly	Leu	Leu	Ser	Tyr	Gln	Gln	Tyr	Gln	Leu	Val	Gln	Leu
			20					25					30		
Arg	Ser	Gly	Val	Asp	Ser	Ala	Ala	Glu	Lys	Ala	Ser	Leu	Glu	Ala	Ile
		35				40						45			
Leu	Ala	Arg	Leu	Ser	Arg	Val	Asp	Glu	Arg	Leu	Asp	Ala	Val	Asp	Gly
	50					55					60				
Gln	His	Leu	Val	Ser	Asn	Glu	Asp	Phe	Arg	Ser	Gly	Gln	Gln	Ala	Leu
65					70				75						80
Ser	Asn	Arg	Ile	Asp	Ala	Ala	Gln	Ala	Phe	Ala	Lys	Gln	Ala	Ser	Asp
			85						90					95	
Ala	Val	Glu	Asn	Leu	Ala	Gln	Thr	Thr	Ala	Ser	Ala	Gly	Asp	Leu	Leu
			100					105					110		
Val	Leu	Lys	Ala	Thr	Val	Glu	Thr	Leu	Asp	Gly	Ser	Val	Arg	Thr	Leu
		115					120					125			
Gln	Glu	Lys	Gln	Ala	Lys	Ala	Pro	Pro	Leu	Ile	Val	Pro	Ala	Pro	Lys
	130					135					140				
Arg	Pro	Ile	Pro	Ala	Lys	Pro	Lys	Pro	Lys	Pro	Lys	Pro	Met	Glu	Pro
145					150					155					160
Pro	Pro	Phe	Ser	Ile	Leu	Gly	Val	Glu	Tyr	Arg	Gly	Gly	Glu	Arg	Phe
			165						170					175	
Leu	Ser	Val	Ala	Pro	Pro	Gly	Ser	Thr	Gln	Leu	Ser	Gln	Ile	Tyr	Leu
			180					185					190		
Ile	Arg	Arg	Gly	Asp	Ala	Val	Ala	Gly	Thr	Thr	Trp	Arg	Leu	Thr	Asp
	195					200						205			
Leu	Asp	Asp	Gly	Thr	Ala	His	Phe	Asp	Val	Ala	Gly	Thr	Ser	Arg	Ser
	210					215					220				
Val	Arg	Ile	Gln	Pro											

225

<210> 155
 <211> 343
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 155
 Met Ala Glu Ala Ile Arg Lys Asp Ala Met Met Thr Lys Leu Tyr Phe
 1 5 10 15
 Asp Leu Leu Asn Ser Pro Ala Glu Ala His Ser Ser Ile Gln Lys Ser
 20 25 30
 Leu Ser Val Gln Ala Ile Ser Thr Thr Val Pro Ile Leu Glu Phe Pro
 35 40 45
 Ser Glu Thr Val Tyr Ala Tyr Ala Ser Tyr Ile Asn Ala Leu Ser Ile
 50 55 60
 Gly Gln Arg Ile Asp Pro Ala Phe Thr Gln Ser Leu Thr Ser Ala Ile
 65 70 75 80
 Ser Asn Leu Ala Gly Arg Pro Ile Ala Val Ser Asp Ile Tyr Gln Lys
 85 90 95
 Ile His Glu Thr Thr Leu Arg Thr Pro Val Glu Met Gly Val Arg Pro
 100 105 110
 Asn Ser Ile Thr Phe Glu Glu Tyr Gln Ala Thr Ile Asn Gln Gln Ala
 115 120 125
 Ile Asn Met Val Gln Asp Met Gln Asp Gly Asp Lys Gly Glu Lys Val
 130 135 140
 Glu Ala Leu Gln Ala Asn Met Gln Phe Leu Tyr Gly Gln Glu Ile Asn
 145 150 155 160
 Thr Asp Phe Ile Ala Arg Asn Glu Leu Ala Ala Gly Gln Arg Ala Lys
 165 170 175
 Thr Val Ala Ile Val Gln Gly His Ile Thr Ile Gly Tyr Gly Phe Asp
 180 185 190
 Thr Phe Val His Glu Ala Ser Glu Leu Asn Ser Leu Asn Leu Val Gly
 195 200 205
 Ser Thr Arg Gln Lys Val Leu Pro Ala Leu Gln Leu Ser Thr Ser Asp
 210 215 220
 Pro Gly Phe Trp Ser Val Tyr Ala Leu Leu Gly Gln Ser Leu Thr Asp
 225 230 235 240
 Asp Asp Gly Leu Leu Leu Phe Ser Ala Lys Ala Arg Ala Val Val Gln
 245 250 255
 Arg Ile Ala Ser Asn Gln Phe Ala Gly Lys Trp Asn Gly Leu Pro Pro
 260 265 270
 Ala Ile Lys Thr Val Ala Leu Asp Leu Tyr Tyr Gln Tyr Gly Gln Thr
 275 280 285
 Gly Asn Phe Pro Lys Phe Gln Gln Ala Ile Asn Ser His Asp Trp Pro
 290 295 300
 Ala Val Ile His Glu Leu Arg Asn Trp Asn Gly Val Pro Asn Asp Pro
 305 310 315 320
 Leu Gln Phe Ile Thr Lys Arg Leu Glu Glu Arg Ala Lys Tyr Leu Ala
 325 330 335
 Ile Ser Phe Asn Tyr Glu Gln
 340

<210> 156
 <211> 221
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 156

Met	Asn	Asn	Thr	Val	Ser	Glu	Thr	Gln	Gln	Ile	Asn	Ile	Tyr	Gln	Asn
1				5					10					15	
Pro	Gly	Gln	Ser	Ile	Ser	Gly	Leu	Tyr	Lys	Gly	Leu	Ala	Asn	Gln	Cys
			20					25					30		
Ser	Pro	Gly	Gln	Pro	Phe	Pro	Glu	Val	Gln	Leu	Val	Glu	Ala	Trp	Asp
		35					40					45			
Ile	Pro	Leu	Val	Leu	His	Pro	Glu	Phe	Val	Pro	Asn	Gly	Asp	Val	Ser
	50					55					60				
Lys	Ile	Asp	Lys	Glu	Tyr	Gly	Thr	Ile	Leu	Ala	Ala	Glu	Ser	Ala	Gln
65					70					75					80
Val	Ile	Leu	Leu	Gln	Leu	Gln	Met	Ala	Gln	Asp	Lys	Ala	Lys	Ala	Cys
				85					90					95	
Gly	Glu	Val	Thr	Ala	Leu	Ile	Ser	Ser	Val	Ser	Ser	Asn	Leu	Asn	Thr
			100					105						110	
Ile	Lys	Ser	Arg	His	Gly	Ala	Asn	Tyr	Leu	Asn	Leu	Leu	Lys	Gln	Ser
		115					120					125			
Pro	Asn	Arg	Tyr	Pro	Thr	Ser	Val	Gly	Val	Glu	Ile	Met	Ser	Gly	Gly
	130					135					140				
Ser	Pro	Asn	Gln	Asp	Ser	Gly	Ile	Glu	Val	Ser	Tyr	Gly	Ala	Ser	Leu
145					150					155					160
Gly	Arg	Leu	Thr	Gln	Ser	Gln	Leu	Gln	Ala	Met	Asn	Leu	Pro	Ala	Ser
				165					170					175	
Leu	Lys	Gln	Leu	Leu	Thr	Gln	Gly	Ile	Gly	Val	Lys	Leu	Ser	Gln	Pro
			180					185					190		
Glu	Tyr	Trp	Pro	Ala	Tyr	Asn	Asn	Ile	Ala	Thr	Gly	Ile	Arg	Tyr	Thr
		195				200						205			
Thr	Gly	Val	Ala	Ile	Thr	Leu	Ala	Tyr	Trp	Ala	Thr	Val			
	210					215						220			

<210> 157

<211> 224

<212> PRT

<213> Pseudomonas aeruginosa

<400> 157

Met	Thr	Gln	Ala	Ala	Lys	Ile	Pro	Ala	Asn	Glu	Tyr	Ser	Leu	Gly	Asp
1				5					10					15	
Gly	Arg	Gly	Tyr	Ile	Asn	Ile	Trp	Pro	Glu	Lys	Asp	Glu	Ala	Gln	Ala
			20					25					30		
Phe	Leu	Ile	His	Asn	Asp	Gly	Pro	Asn	Gly	Ala	Thr	Cys	Ser	Leu	Lys
		35					40					45			
Gly	Thr	Leu	Arg	Asp	Asn	Lys	Gly	Val	Val	His	Ser	Pro	Tyr	Ser	Ser
	50					55					60				
Ala	Ser	Cys	Leu	Leu	Ser	Ile	Thr	Gln	Thr	Gly	Leu	Leu	Ser	Val	Ser
65					70					75					80
Val	Lys	Arg	Glu	Glu	Asn	Ser	Pro	Ser	Cys	Ser	Ala	Trp	Cys	Gly	Pro
				85					90					95	
Arg	Val	Trp	Phe	Glu	Gly	Ala	Tyr	Ser	Val	Pro	Pro	Lys	Gly	Cys	Tyr
			100					105					110		
Tyr	Met	Gln	Ile	Arg	Lys	Lys	Thr	Arg	Gln	Met	Leu	Gly	Met	Ile	Glu
		115					120					125			
Lys	Lys	Glu	Leu	Asp	Ala	Ala	Arg	Ala	Leu	Ser	Asn	Lys	Leu	Leu	Ser
		130				135					140				
Asp	Cys	Ala	Thr	Glu	Leu	Ala	Tyr	Pro	Ala	Lys	Ile	Tyr	Leu	Thr	Asn
145					150					155					160
Thr	Leu	Ala	Met	Ile	Ser	Ala	Glu	Lys	Gly	Glu	Asn	Ala	Arg	Cys	Leu
				165					170					175	

Glu	Tyr	Ala	His	Arg	Val	Gln	Lys	Gln	Ile	Pro	Val	Arg	Asp	Asp	Gly
			180					185					190		
Gln	Pro	Ala	Glu	Asp	Leu	Leu	Pro	Ala	Glu	His	Ala	Phe	Ala	Met	Glu
		195					200					205			
Gln	Arg	Ala	Lys	Ala	Asp	Ala	Leu	Ser	Glu	Arg	Cys	Ser	Asp	Glu	Lys
	210					215					220				

<210> 158
 <211> 81
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 158

Val	Leu	Val	Glu	Arg	Leu	Pro	Thr	Asp	Val	Glu	Phe	Ala	Gly	Glu	Leu
1				5					10					15	
Ser	Leu	Gly	Leu	Ala	Gly	Arg	Cys	Pro	Gln	Pro	Gln	Gly	Ser	Thr	Cys
			20					25					30		
Leu	Ser	Asp	Lys	Ala	Ser	Leu	Arg	Pro	Arg	Tyr	Ala	Gln	Ser	Leu	Ile
		35					40					45			
Ser	Ser	Arg	Tyr	Arg	Ala	Gly	Ala	Ala	Cys	Met	Leu	Leu	Ser	Lys	Pro
	50					55					60				
Ala	Ala	Gly	Leu	Phe	Arg	Val	Ser	Val	Arg	Pro	Ile	His	Leu	Tyr	Leu
65					70					75					80
Gly															

<210> 159
 <211> 119
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 159

Met	Asp	Ile	Arg	Leu	Glu	Ile	Leu	Ala	Leu	Glu	Gln	Leu	Leu	Leu	Glu
1				5					10					15	
Pro	Glu	Ser	Arg	Lys	Asn	Asp	Arg	Leu	Leu	Lys	Gln	Leu	Leu	Thr	Glu
			20					25					30		
Asp	Phe	Val	Glu	Phe	Gly	Ala	Ile	Gly	Lys	Ser	Trp	Thr	Lys	Ala	Glu
		35					40					45			
Val	Ile	Val	Gly	Leu	Lys	Ser	Gln	Thr	Trp	Ile	Lys	Arg	Thr	Ile	Glu
	50					55					60				
Asp	Phe	Lys	Leu	Arg	Val	Leu	Ala	Asp	Gly	Val	Ala	Leu	Ala	Thr	Tyr
65					70					75					80
Arg	Cys	Arg	His	Gln	Asn	Ala	Asn	Gly	Asp	Glu	Ser	Leu	Ser	Met	Arg
			85						90					95	
Ser	Ser	Val	Trp	Lys	Thr	Tyr	Glu	Asp	Gly	Trp	His	Met	Val	Phe	His
			100					105					110		
Gln	Gly	Thr	Arg	Val	Ser	Glu									

<210> 160
 <211> 511
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 160

Met	Thr	Ser	Ser	Pro	Asn	Leu	Asp	Gln	Met	Thr	Pro	Glu	Gln	Leu	Arg
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1				5					10				15		
Ala	Leu	Ala	Ala	Gln	Ala	Leu	Gln	Leu	Gln	Ser	Gln	Val	Glu	Ala	Met
			20					25					30		
Ser	Arg	Lys	Ile	Arg	Asn	Asn	Glu	Thr	Leu	Ile	Glu	Gln	Phe	Lys	Phe
		35					40					45			
Glu	Ile	Ala	Leu	Leu	Lys	Arg	His	Lys	Phe	Ala	Lys	Arg	Ser	Glu	Gln
	50				55						60				
Ile	Ser	Ser	Ala	Gln	Gly	Ser	Leu	Leu	Asp	Asp	Leu	Leu	Asp	Thr	Asp
65					70				75						80
Leu	Glu	Ala	Ile	Glu	Ala	Glu	Leu	Lys	Gln	Leu	Leu	Pro	Ala	Ser	Pro
				85					90					95	
Gln	Ala	Glu	Pro	Arg	Gln	Ser	Pro	Lys	Arg	Ser	Pro	Leu	Pro	Pro	Gln
			100					105					110		
Phe	Pro	Arg	Thr	Val	Ile	Arg	His	Glu	Pro	Glu	Asn	Thr	Gln	Cys	Ala
		115					120					125			
Cys	Gly	Cys	Gln	Leu	Gln	Arg	Ile	Gly	Glu	Asp	Val	Ser	Glu	Lys	Leu
	130					135					140				
Asp	Tyr	Thr	Pro	Gly	Val	Phe	Thr	Val	Glu	Gln	His	Val	Arg	Gly	Lys
145					150				155						160
Trp	Ala	Cys	Arg	Gln	Cys	Glu	Thr	Leu	Ile	Gln	Ala	Pro	Val	Pro	Ala
				165					170					175	
Gln	Val	Ile	Asp	Lys	Gly	Ile	Pro	Thr	Ala	Gly	Leu	Leu	Ala	His	Val
			180					185					190		
Met	Val	Ala	Lys	Phe	Ala	Asp	His	Leu	Pro	Leu	Tyr	Arg	Gln	Glu	Lys
		195					200					205			
Ile	Phe	Gly	Arg	Ala	Gly	Leu	Pro	Ile	Ala	Arg	Ser	Thr	Leu	Ala	Gln
	210					215					220				
Trp	Val	Gly	Gln	Thr	Gly	Val	Arg	Leu	Gln	Pro	Leu	Val	Asp	Ala	Leu
225					230					235					240
Arg	Glu	Ala	Val	Leu	Asn	Gln	Asp	Val	Ile	His	Ala	Asp	Glu	Thr	Pro
				245					250					255	
Val	Gln	Met	Leu	Ala	Pro	Gly	Glu	Lys	Lys	Thr	His	Arg	Val	Tyr	Val
			260					265					270		
Trp	Ala	Tyr	Ser	Thr	Thr	Pro	Phe	Ser	Ala	Leu	Lys	Ala	Val	Val	Tyr
		275					280					285			
Asp	Phe	Ser	Pro	Ser	Arg	Ala	Gly	Glu	His	Ala	Arg	Asn	Phe	Leu	Gly
	290					295					300				
Asp	Trp	Asn	Gly	Lys	Leu	Val	Cys	Asp	Asp	Phe	Ala	Gly	Tyr	Lys	Ala
305					310					315					320
Gly	Phe	Glu	Gln	Gly	Ile	Thr	Glu	Ile	Gly	Cys	Met	Ala	His	Ala	Arg
				325					330					335	
Arg	Lys	Phe	Phe	Asp	Leu	His	Val	Ala	Asn	Lys	Ser	Gln	Leu	Ala	Glu
			340					345					350		
Gln	Ala	Leu	His	Ser	Ile	Gly	Gly	Leu	Tyr	Glu	Val	Glu	Arg	Gln	Ala
		355					360					365			
Arg	Asp	Met	Ser	Asn	Glu	Asp	Arg	Trp	Arg	Ile	Arg	Gln	Glu	Met	Ala
	370					375					380				
Val	Pro	Ile	Ser	Lys	Thr	Leu	His	Asp	Trp	Met	Leu	Ala	Gln	Arg	Asp
385					390					395					400
Leu	Val	Pro	Asn	Gly	Ser	Ala	Thr	Ala	Lys	Ala	Leu	Asp	Tyr	Ser	Leu
			405						410					415	
Lys	Arg	Trp	Gly	Ala	Leu	Thr	Arg	Tyr	Leu	Asp	Asp	Gly	Ala	Val	Pro
			420					425					430		
Ile	Asp	Asn	Asn	Gln	Val	Glu	Asn	Gln	Ile	Arg	Pro	Trp	Ala	Leu	Gly
		435					440					445			
Arg	Ser	Asn	Trp	Leu	Phe	Ala	Gly	Ser	Leu	Arg	Ser	Gly	Lys	Arg	Ala
	450					455					460				
Ala	Ala	Ile	Met	Ser	Leu	Ile	Gln	Ser	Ala	Arg	Met	Asn	Gly	His	Asp
465					470					475					480

Pro	Tyr	Ala	Tyr	Leu	Lys	Asp	Val	Leu	Thr	Arg	Leu	Pro	Thr	Leu	Arg
				485					490					495	
Ser	Lys	Asp	Ile	Ser	Gln	Leu	Leu	Pro	His	Gln	Trp	Val	Gln	Ile	
			500					505					510		

<210> 161
 <211> 111
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 161

Met	Ile	Arg	Ile	Asp	Ala	Ile	Trp	Leu	Ala	Thr	Glu	Pro	Met	Asp	Met
1				5					10					15	
Arg	Ala	Gly	Thr	Glu	Thr	Ala	Leu	Ala	Arg	Val	Ile	Ala	Val	Phe	Gly
			20					25					30		
Ala	Ala	Lys	Pro	His	Cys	Ala	Tyr	Leu	Phe	Ala	Asn	Arg	Arg	Ala	Asn
		35					40					45			
Arg	Met	Lys	Val	Leu	Val	His	Asp	Gly	Val	Gly	Ile	Trp	Leu	Ala	Ala
	50					55					60				
Arg	Arg	Leu	Asn	Gln	Gly	Lys	Phe	His	Trp	Pro	Gly	Ile	Arg	His	Gly
65					70					75				80	
Cys	Glu	Val	Glu	Leu	Asp	Ser	Glu	Gln	Leu	Gln	Ala	Leu	Val	Leu	Gly
			85					90						95	
Leu	Pro	Trp	Gln	Arg	Val	Gly	Thr	Gly	Gly	Val	Ile	Ser	Met	Leu	
			100					105					110		

<210> 162
 <211> 88
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 162

Met	Arg	Gln	Arg	Ser	Ser	Tyr	Pro	Lys	Pro	Phe	Lys	Ala	Gln	Val	Val
1				5					10					15	
Gln	Glu	Cys	Leu	Gln	Pro	Gly	Ala	Thr	Val	Ser	Ser	Val	Ala	Ile	Ser
			20					25					30		
His	Gly	Ile	Asn	Ala	Asn	Val	Ile	Arg	Lys	Trp	Leu	Thr	Leu	Tyr	Arg
		35				40						45			
Asp	Gln	Pro	Val	Pro	Ala	Ser	Leu	Pro	Ala	Phe	Val	Pro	Leu	Lys	Ala
	50					55				60					
Thr	Pro	Lys	Arg	Pro	Ala	Glu	Thr	Ser	Val	Leu	Ile	Glu	Leu	Pro	Met
65					70					75					80
Ala	Gly	Gln	Met	Ile	Thr	Val	Lys								
				85											

<210> 163
 <211> 408
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 163

Met	Ala	Leu	Ser	Leu	Ile	Arg	Ser	Leu	Thr	Ala	Ser	Ala	Ser	Arg	Asn
1				5					10					15	
Ile	Ser	Ala	Leu	Lys	Arg	Asp	Ala	Lys	Arg	Leu	Gln	Lys	Asn	Ser	Phe
			20					25					30		
Leu	Val	Phe	Gly	Thr	Glu	Tyr	Pro	Leu	Lys	Val	Cys	Gln	Asn	Ala	Val

Ser	Leu	Asn	Arg	Ser	Asn	Pro	Pro	Val	Tyr	Thr	Gly	Ser	Val	Asn	Ala
		35					40					45			
His	Arg	Gln	Leu	Val	Met	Asp	Arg	Leu	Lys	Arg	Lys	Pro	Phe	Ala	Ala
	50					55					60				
Gln	Ala	Glu	Val	Val	Gln	Ala	Ile	Thr	Ala	Leu	Leu	Leu	Asp	Arg	Asn
65					70					75					80
Glu	Gln	Ala	Gly	Ile	Ile	Asn	Ala	Glu	Met	Gly	Thr	Gly	Lys	Thr	Met
				85					90					95	
Met	Ala	Ile	Ala	Val	Ala	Ala	Val	Met	His	Ala	Ala	Gly	Tyr	Arg	Arg
			100					105					110		
Thr	Leu	Val	Val	Ser	Pro	Pro	His	Leu	Val	Tyr	Lys	Trp	Arg	Arg	Glu
	115						120					125			
Ile	Leu	Glu	Thr	Ile	Pro	Ala	Ala	Arg	Val	Trp	Val	Leu	Asn	Gly	Pro
130						135					140				
Asp	Thr	Leu	Leu	Lys	Leu	Leu	Lys	Leu	Arg	Asp	Gln	Met	Gly	Asp	Ala
145					150					155					160
Tyr	Asp	Gly	Arg	Gln	Glu	Phe	Phe	Ile	Leu	Gly	Arg	Val	Arg	Met	Arg
				165					170					175	
Met	Gly	Phe	His	Trp	Arg	Leu	Ala	Cys	Trp	Lys	Lys	Arg	Ala	Ala	Gly
			180					185					190		
Gly	Gln	Leu	Leu	Ala	Ala	Cys	Pro	Asp	Cys	Gly	Gln	Val	Leu	Glu	Asp
	195						200					205			
Leu	Glu	Gly	Asn	Leu	Val	Thr	Val	Glu	Glu	Phe	Glu	Arg	Gly	Asp	Arg
210						215					220				
Arg	Arg	Thr	Cys	Ser	Ser	Cys	Arg	Gly	Ala	Leu	Trp	Thr	Leu	Ile	Arg
225				230					235						240
Pro	Gly	Lys	Pro	Asp	Gly	Gly	Asn	Arg	Arg	Ala	Thr	Ile	Leu	Lys	Ser
				245					250					255	
Met	Cys	Arg	Ile	Pro	Thr	Ile	Gly	Pro	Val	Arg	Ala	Glu	Arg	Leu	Leu
			260					265					270		
Asn	Asp	Phe	Gly	Glu	Asp	Phe	Leu	Ala	Thr	Met	Leu	Val	Asp	Asn	Val
	275						280					285			
Ser	Glu	Phe	Ile	Asn	Leu	Met	Asp	Ala	Lys	Gly	Asn	Phe	Val	Phe	Ser
290						295					300				
Asp	Arg	Gln	Ala	Lys	Arg	Met	Glu	Arg	Ser	Met	Ala	Asn	Ile	Glu	Phe
305					310					315					320
Gly	Phe	Gly	Glu	Gly	Gly	Tyr	Gln	Pro	Thr	Glu	Phe	Ile	Lys	Arg	Tyr
				325					330					335	
Leu	Pro	Asp	Gly	Tyr	Phe	Asp	Leu	Leu	Val	Leu	Asp	Glu	Gly	His	Glu
			340					345					350		
Tyr	Lys	Asn	Ser	Gly	Ser	Ala	Gln	Gly	Gln	Ala	Met	Gly	Val	Leu	Ala
		355					360					365			
Ala	Lys	Ala	Arg	Lys	Thr	Val	Leu	Leu	Thr	Gly	Thr	Leu	Met	Gly	Gly
	370					375					380				
Tyr	Ala	Asp	Asp	Leu	Phe	Tyr	Leu	Leu	Phe	Arg	Ile	Leu	Thr	Gln	Arg
385					390					395					400
Met	Ile	Glu	Asp	Gly	Tyr	Arg	Pro	Asn	Ala	Arg	Gly	Ser	Met	Ala	Pro
				405					410					415	
Ala	Ala	Met	Ser	Phe	Met	Arg	Asp	His	Gly	Val	Leu	Lys	Asp	Ile	Tyr
			420					425					430		
Thr	Glu	Arg	Asp	Gly	Asp	Ser	His	Lys	Thr	Ala	Arg	Gly	Lys	Lys	Leu
		435					440					445			
Ser	Val	Arg	Thr	Val	Lys	Ala	Pro	Gly	Phe	Gly	Pro	Lys	Gly	Ile	His
	450					455					460				
Arg	Phe	Val	Leu	Pro	Phe	Thr	Val	Phe	Leu	Lys	Leu	Lys	Asp	Ile	Gly
465					470					475					480
Gly	Asn	Val	Leu	Pro	Asp	Tyr	Gln	Glu	Glu	Phe	Ile	Asp	Val	Pro	Met
				485					490					495	
Ala	Pro	Glu	Gln	Ala	Ser	Ala	Tyr	Gln	Arg	Leu	Ala	Ala	Thr	Leu	Thr

			500					505				510			
Ala	Glu	Leu	Arg	Gln	Ala	Leu	Ala	Arg	Arg	Asp	Thr	Thr	Leu	Leu	Gly
		515					520					525			
Val	Val	Leu	Asn	Val	Leu	Leu	Ala	Trp	Pro	Asp	Cys	Cys	Phe	Arg	Pro
		530				535					540				
Glu	Ile	Val	Lys	His	Pro	Arg	Thr	Arg	Asp	Thr	Leu	Ala	Phe	Val	Pro
545					550					555					560
Ala	Ile	Phe	Gly	Asp	Glu	Gln	Leu	Ile	Pro	Lys	Glu	Gln	Val	Leu	Val
			565						570						575
Asp	Leu	Cys	Phe	Glu	Glu	Lys	Ala	Lys	Gly	Arg	Lys	Val	Leu	Ala	Tyr
			580					585					590		
Thr	Val	Tyr	Ser	Gly	Thr	Arg	Asp	Thr	Thr	Ser	Arg	Leu	Lys	Lys	Val
		595					600					605			
Leu	Glu	Gln	Ser	Gly	Leu	Lys	Val	Ala	Val	Leu	Arg	Ala	Ser	Val	Asp
	610					615					620				
Thr	Ala	Arg	Arg	Glu	Asp	Trp	Ile	Leu	Asp	Gln	Val	Asp	Arg	Gly	Ile
625					630					635					640
Asp	Val	Leu	Ile	Thr	Asn	Pro	Glu	Leu	Val	Lys	Thr	Gly	Leu	Asp	Leu
			645						650					655	
Leu	Asp	Phe	Pro	Thr	Ile	Ala	Phe	Leu	Gln	Thr	Gly	Tyr	Asn	Val	Tyr
			660					665					670		
Thr	Leu	Gln	Gln	Ala	Ala	Arg	Arg	Ser	Trp	Arg	Ile	Gly	Gln	Lys	His
		675					680					685			
Pro	Val	Arg	Val	Val	Phe	Phe	Gly	Tyr	Ala	Gly	Ser	Ser	Gln	Ile	Thr
	690					695					700				
Cys	Leu	Gln	Leu	Met	Ala	Lys	Lys	Ile	Ala	Val	Ala	Gln	Ser	Thr	Ser
705					710					715					720
Gly	Asp	Val	Pro	Glu	Ser	Gly	Leu	Asp	Ser	Leu	Asn	Gln	Asp	Gly	Asp
			725					730						735	
Ser	Val	Glu	Met	Ala	Leu	Ala	Arg	Gln	Leu	Ile	Ala	Ala			
			740					745							

<210> 165
 <211> 483
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 165

Met	Ala	Leu	Met	Phe	Pro	Arg	Leu	Ala	Arg	Asn	Phe	Ala	Arg	Asn	Gly
1				5					10					15	
Tyr	Phe	Pro	Thr	Asp	Glu	Val	Thr	Leu	Glu	Arg	Ala	Leu	Gln	Ala	Leu
			20					25					30		
Thr	Leu	Ala	Pro	Ser	Gly	Arg	Met	Arg	Ile	Cys	Asp	Pro	Cys	Ala	Gly
		35					40					45			
Glu	Gly	Val	Ala	Leu	Ala	Glu	Ala	Ala	His	Thr	Leu	Gly	Arg	Asp	Gln
	50					55					60				
Val	Gln	Ala	Leu	Ala	Val	Glu	Tyr	Asp	Arg	Glu	Arg	Ala	Asp	His	Ala
65					70					75					80
Arg	Gly	Leu	Leu	Asp	Arg	Val	Leu	His	Ser	Asp	Leu	Phe	Asp	Thr	Met
			85						90					95	
Ile	Ser	Arg	Gln	Ser	Phe	Gly	Leu	Leu	Trp	Leu	Asn	Pro	Pro	Tyr	Gly
			100					105					110		
Asp	Leu	Val	Ala	Asp	His	Ser	Gly	Ala	Ser	Gln	Tyr	Gln	Gly	Ser	Gly
		115					120					125			
Arg	Arg	Arg	Leu	Glu	Lys	Ala	Phe	Tyr	Gln	Arg	Cys	Leu	Pro	Leu	Leu
	130					135					140				
Gln	Tyr	Gly	Gly	Val	Met	Val	Leu	Ile	Val	Pro	His	Tyr	Val	Leu	Asp
145					150					155					160

65					70					75					80
Arg	Thr	Thr	Arg	Gln	Phe	Arg	Gly	Thr	Leu	Phe	Gly	Ser	Leu	Leu	Asn
				85					90					95	
Leu	Trp	Leu	Phe	Asp	Arg	Arg	Ala	Ser	Ala	Pro	Asp	Arg	Gly	Asn	His
			100					105					110		
Leu	Ala	Phe	Ala	Leu	Leu	Gln	Arg	Asp	Glu	Asp	Pro	His	Gln	Arg	Leu
		115					120					125			
Trp	Pro	Leu	Val	Met	Glu	Thr	Cys	Pro	Leu	Pro	Leu	Leu	Gln	His	Trp
	130					135					140				
Arg	Glu	Pro	Val	Met	Glu	Val	Leu	Thr	Gln	His	Gln	Met	Leu	Thr	Ala
145					150					155					160
Leu	Pro	Gly	Thr	Ile	Gly	Asn	Val	Cys	Ala	Trp	Arg	Leu	Ala	Leu	Arg
			165					170						175	
Val	Asp	Val	Leu	Glu	Pro	Thr	Leu	Gly	Glu	Val	Ile	Arg	Glu	Ser	Ile
		180						185					190		
Leu	Thr	Thr	Asp	Ala	Gln	Ala	Gln	Ala							
		195					200								

<210> 167
 <211> 84
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 167															
Met	Asn	Pro	Leu	Phe	Thr	Asn	Leu	Thr	Gln	Glu	Thr	Leu	Ala	Tyr	Leu
1				5					10					15	
Glu	Asp	Gln	Leu	Ser	Asn	Asn	Asp	Val	Ala	Gly	Asp	Asp	Glu	Leu	Ile
		20					25					30			
Asp	Leu	Phe	Ile	Glu	Glu	Leu	Ser	Leu	Thr	Leu	Glu	Gln	Ala	Glu	Ala
		35				40					45				
Ala	Val	Ala	Leu	Arg	Asp	Gln	Tyr	Leu	Cys	Gln	Val	Phe	Leu	Ile	Gly
50					55					60					
Gln	Gly	Pro	Leu	His	Gln	Ala	Asp	Gly	Leu	Ser	Phe	Asp	Pro	His	Thr
65				70					75					80	
Lys	Ser	Val	Arg												

<210> 168
 <211> 120
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 168															
Met	Gly	Trp	Leu	Phe	Ser	His	Gln	Thr	Lys	Glu	Asp	Leu	Leu	Arg	Glu
1				5					10					15	
Leu	Leu	Ala	Pro	Thr	Ser	Thr	Phe	Ala	Gly	Ser	Thr	Glu	Val	Leu	Ala
		20					25					30			
His	Ala	Val	Ser	Gly	Asn	Glu	Leu	Trp	Thr	Val	Val	Lys	Arg	Thr	Phe
		35				40					45				
His	Leu	Ala	Gly	Phe	Tyr	Phe	Gly	Lys	Pro	Ala	Gly	His	Ser	Ile	Thr
50					55				60						
Met	Ile	Glu	Leu	His	Leu	Leu	Asp	Cys	Ser	Ala	Gly	Gln	Trp	Gly	Tyr
65				70				75						80	
Lys	Thr	Ile	Pro	Glu	Ser	Ala	Gly	Pro	Phe	Tyr	Tyr	Gly	Cys	Pro	Leu
			85				90						95		
Glu	Phe	Leu	Asp	Leu	Ala	His	Asp	Glu	Ile	Asn	Gln	Glu	Trp	Arg	Lys
		100					105						110		

Arg Leu Thr His Glu His Gln Ala
 115 120

<210> 169
 <211> 91
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 169
 Met Lys Ser Ile Tyr Asn Thr Pro Gly Phe Ser Glu Glu Leu Leu Leu
 1 5 10 15
 Val Cys Ala Ser Leu Arg Glu Val Gly Leu Asp Asn Leu Ala Asp Gln
 20 25 30
 Phe Arg Ala Ala Val Phe Asp Arg Ser Val Val Asp Gln Ala Ile Ile
 35 40 45
 Ala Leu Arg Glu Arg Val Lys Thr Pro Ser Pro Glu His Ala Ala Asp
 50 55 60
 Asn Glu Pro Trp Leu Tyr Cys Asp Trp Gln Ala Arg Gln Thr Ala Tyr
 65 70 75 80
 Arg Leu Leu Gln Arg Leu Glu Arg Ala Thr Arg
 85 90

<210> 170
 <211> 136
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 170
 Ile Pro Ser Pro Arg Ser Arg Phe Gly Gly Ile Ile Leu Phe Ala Gly
 1 5 10 15
 His Thr Met Ile Thr Val Pro Gly Gln Leu Ala Ile Arg Thr Ile Asn
 20 25 30
 Gly Arg Tyr Gly Glu Phe Asn Val Gly Lys Leu Trp Thr Ser Ile Gly
 35 40 45
 Glu Phe Ile Ile Lys Asp Ala Phe Leu Asp Gln His Thr Glu Gly Lys
 50 55 60
 Tyr Arg Gly Asp Phe Val Ile Ala Asn Ile Arg Pro His His Tyr Ser
 65 70 75 80
 Ala Gly Gly Arg Leu Val Ile Glu Ile Arg Ala Ile Val Asp Ser Met
 85 90 95
 Thr Leu Asn Asp Met Asp Ser Leu Ser Asp Glu Glu Val Glu Arg Leu
 100 105 110
 Ser Gly Asn Glu Val Asp Pro Leu Asp Glu Val Pro Glu Ile Gln Leu
 115 120 125
 Pro Thr Val Val Pro Ala Ile Pro
 130 135

<210> 171
 <211> 209
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 171
 Met Thr Ser Leu Asn Asn His Ser Ser Ala Gly His Thr Ala Ala Tyr
 1 5 10 15
 Leu Lys Leu Pro Ile Val Leu Thr Asn Ala Ala Trp Leu Arg Leu Val

Leu Ala Gly Gln Ala Asp Ile Arg Leu Leu Val Leu Asp Pro Phe Ala
 210 215 220
 Pro Thr Leu Lys Gly Leu Pro Leu Tyr Asp Asp
 225 230 235

<210> 173
 <211> 78
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 173
 Met Gly Leu Val Phe Pro Thr Glu Arg Arg Ile Thr Met Gln Tyr Gly
 1 5 10 15
 Lys Leu Ala Leu Ala His Leu Ser Leu Glu Leu Pro Leu Gln Val Leu
 20 25 30
 Met Asn Lys Asn Arg Ala Tyr Tyr Ile Gly Thr Ser Asp Glu Glu Gly
 35 40 45
 Pro Ala Ser Arg Glu Ser Val Glu Tyr Tyr Pro Ser Arg Glu Leu Ala
 50 55 60
 Gln Gln Ala Leu Asp His Gly Thr Trp Thr Gln Leu Glu Tyr
 65 70 75

<210> 174
 <211> 88
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 174
 Met Gly Asn Val Trp Arg Leu Cys Gln Gly Arg Tyr Leu Gly Ile Val
 1 5 10 15
 Val Gly Gln Glu Gln Pro Gly Glu Val Ala Glu Leu Thr Ala Glu Gln
 20 25 30
 Gln Leu Val Leu Asp Val Ala Glu Ala Asn Leu Leu Asn Phe Arg Gln
 35 40 45
 Gly Gly Gln Phe Tyr Asp Leu Asp Val Ala His Asp Asp Leu Gln Ile
 50 55 60
 Met Glu Asn Thr Thr Pro Trp Gly Glu Met Val Pro Pro Gly Trp Val
 65 70 75 80
 Cys Asp Glu Glu Trp Arg Ile Ala
 85

<210> 175
 <211> 179
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 175
 Leu Thr Gly Lys Val Phe Leu Arg Phe Arg Leu Arg Asn Trp Arg Ile
 1 5 10 15
 Ile Met Ser Asn Asn Thr Gln Ala Gln Glu Ala Lys Tyr Phe Asp Leu
 20 25 30
 His Thr Thr Gly Ile Gly Tyr Leu Asn Arg Ile Arg Glu Val Pro Ile
 35 40 45
 Arg Arg Gly Glu Pro Phe Leu Ala Val Thr Val Ala Ala Leu His Gly
 50 55 60
 Ala Ala Asp Ser Val Glu Tyr Ser Tyr Ile Asp Cys Lys Val Val Gly

65					70					75					80
Ala	Gln	Ala	Glu	Lys	Leu	Val	Arg	Arg	Cys	Lys	Glu	Ala	Val	Glu	Ala
				85					90					95	
Lys	Lys	Lys	Val	Leu	Ile	Ser	Phe	Arg	Ile	Gly	Asp	Ile	Trp	Ala	Asp
			100					105					110		
Pro	Phe	Ile	His	Gln	Lys	Gly	Glu	Lys	Gln	Gly	Lys	Pro	Asp	Ala	Ser
		115					120					125			
Leu	Lys	Gly	Arg	Leu	Leu	Phe	Ile	Ser	Trp	Ile	Lys	Val	Asp	Gly	Thr
	130					135					140				
Thr	Val	Tyr	Asp	Ala	Lys	Glu	Glu	Ala	Glu	Lys	Ala	Gln	Gln	Gly	Lys
145					150					155					160
Gly	Glu	Pro	Gln	Gly	Glu	Pro	Ala	Ala	Pro	Ala	Glu	His	Ala	Glu	Gln
				165					170					175	
Ala	Ala	Ala													

<210> 176
 <211> 188
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 176															
Met	Ser	Lys	Gln	Ser	Thr	Ser	Phe	Glu	Ile	Gly	Phe	Ala	Leu	Gly	Ser
1				5					10					15	
Val	Val	Arg	Glu	Phe	Arg	Arg	Ala	Leu	Ser	Arg	Pro	Pro	Val	Val	Val
			20					25					30		
Gln	Ala	Gln	Ala	Pro	Val	Ala	Leu	Arg	Val	Gln	Arg	Ile	Asp	Pro	Ala
		35					40					45			
Phe	Leu	Ala	Gly	Pro	Thr	Ala	Gly	Glu	Leu	Glu	His	Ile	Ser	Asp	Ile
	50					55					60				
Pro	Ala	Ile	Val	Arg	Leu	Lys	Lys	Val	Asn	Leu	Asn	Asp	Trp	Tyr	Leu
65					70				75						80
Ala	Asn	Thr	Arg	Glu	Val	Gln	Lys	Pro	Lys	Arg	Ala	Arg	Lys	Pro	Lys
				85					90					95	
Pro	Ala	Lys	Ala	Thr	Ala	Lys	Ala	Glu	Thr	Pro	Val	Arg	Lys	Glu	Leu
			100					105					110		
Lys	Met	Gly	Ser	Leu	Asp	His	Leu	Ile	Ala	Pro	Asn	Ser	Glu	Ser	Glu
		115					120					125			
Met	Gly	Arg	Pro	Pro	Leu	Gln	Leu	Glu	Ser	Leu	Asn	Asp	His	Glu	Ile
	130					135					140				
Ala	Leu	Leu	Pro	Ala	Pro	Gly	Ser	Ala	Val	Ser	Trp	Glu	Leu	His	
145					150				155					160	
Arg	Arg	Thr	Gln	Glu	Gln	Tyr	Gln	Gln	Arg	Trp	Gln	Asp	Tyr	Leu	Ser
				165					170					175	
Thr	Met	Thr	Asp	Glu	Gln	Val	Ala	Ala	Leu	Gly	Arg				
			180					185							

<210> 177
 <211> 214
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 177															
Met	Val	Phe	Leu	Leu	Gln	Val	Glu	Gly	Ala	Glu	Lys	Thr	Leu	Ala	Leu
1				5					10					15	
Ala	Gly	Lys	Trp	Ile	Pro	Arg	Trp	Val	Ala	Glu	Gly	Ser	Phe	Tyr	Arg
			20					25					30		

Pro Arg Pro Thr Asp Arg Ala Thr Arg Ser Tyr Ala Val Leu Gly Trp
 35 40 45
 Ile Asn Thr Val Gly Cys Ala Ala Ala Phe Arg Ile Arg Ala Ala Trp
 50 55 60
 Gly His Val Ala Asp Asn Val Ser Arg Ser Arg Val His His Arg Ser
 65 70 75 80
 Gly Gly Arg Lys Cys Gln Gly Gln Ala Gly Gly Gly Ala Asp Ala Ala
 85 90 95
 Gly Gly Glu Arg Gly Arg Lys Ser Ala Ala Gly Arg Asn Pro Val Lys
 100 105 110
 Gly Phe Pro Ser Arg Val Trp Lys Gly Ser Gln Val Ser His Leu Trp
 115 120 125
 Leu Asn Arg Arg Ser Leu Gly Ile Asp Arg Leu Asp Pro Ile Thr Arg
 130 135 140
 Pro Leu Ser Trp Leu Gly Gln Gln Thr Val Gly Thr His Pro Arg Thr
 145 150 155 160
 Lys Gly Ala Leu Arg Ile Thr Gly Gly Pro Pro Ala Gly Arg Arg Ile
 165 170 175
 Pro Met Gly Ser Leu Ile Val Leu Glu Gln Glu His Gln Ala Thr His
 180 185 190
 Gly Glu Gly Lys Arg Arg Gly Arg Asn Thr Ser Thr Thr Leu Lys Ser
 195 200 205
 Arg Lys His Arg Thr Ser
 210

<210> 178
 <211> 145
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 178
 Met Pro Leu Met Trp Ile Val Leu Val Leu Ala Leu Ile Thr Gly Thr
 1 5 10 15
 Trp Leu Ser Val Gln Ser Asp His Ala Thr Ser Ser Ala Glu Leu Ala
 20 25 30
 Glu Val Asp Thr Leu Ala Arg Ser Leu Leu Leu Phe Arg Ser Ser Leu
 35 40 45
 Ala Glu Tyr Ala His Ala Asn Pro Gly Phe Thr Gly Ser Pro Ala Asp
 50 55 60
 Ser Ala Leu Gly Leu Pro Ala Trp Phe Arg Lys Pro Ala Arg Leu Gln
 65 70 75 80
 Gly Tyr Ile Ala Ala Gly Thr Ser Tyr Ala Phe Ile Ala Ser Pro Pro
 85 90 95
 Ala Gly Leu Ala Ala Ala Val Asp Ala Gly Thr Glu Ser Asp Leu Val
 100 105 110
 Gly Val Arg Arg Asn Gly Gln Leu Val Thr Arg Arg Leu Gly Ala Thr
 115 120 125
 Val Ile Ala Leu Pro Thr Pro Ile Pro Glu Gly Ala Val Val Ala Val
 130 135 140
 Lys
 145

<210> 179
 <211> 442
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 179

Met	Arg	Ser	Thr	Arg	Ser	Ser	Gly	Phe	Ile	Ser	Ile	Glu	Leu	Met	Ile
1				5				10						15	
Ala	Leu	Val	Val	Ile	Ala	Ile	Ala	Thr	Ala	Gly	Gly	Ile	Ser	Val	Leu
			20					25					30		
Met	Ser	Tyr	Leu	Asp	Gly	Leu	Asp	Glu	Gln	His	Ala	Ala	Gln	Gln	Gln
		35					40					45			
Gln	Gln	Val	Ala	Lys	Ala	Ala	Glu	Lys	Tyr	Leu	Lys	Asp	Asn	Phe	Ser
	50					55					60				
Thr	Val	Leu	Ala	Ser	Ala	Gly	Ala	Thr	Ala	Pro	Ala	Val	Ile	Thr	Val
65					70				75					80	
Pro	Met	Leu	Arg	Asn	Thr	Arg	Tyr	Leu	Pro	Ala	Gly	Phe	Arg	Asp	Thr
				85					90					95	
Asn	Ile	Tyr	Gly	Gln	Gln	Tyr	Gln	Val	Leu	Ala	Arg	Lys	Pro	Ala	Ala
			100					105					110		
Asn	Gln	Leu	Glu	Thr	Leu	Ile	Val	Thr	Thr	Gly	Gly	Gln	Val	Ala	Ser
		115					120					125			
Glu	Leu	Ser	Ile	Arg	Arg	Ile	Ala	Gln	Leu	Met	Gly	Ala	Thr	Gly	Gly
	130					135					140				
Tyr	Ile	Ser	Lys	Thr	Asn	Thr	Ser	Ile	Ala	Gln	Gly	Ala	Ala	Trp	Gln
145					150					155				160	
Val	Ala	Leu	Ser	Asn	Phe	Gly	Ser	Ala	Pro	Gly	Ala	Gly	His	Leu	Ala
				165					170					175	
Thr	Ala	Leu	Phe	Phe	Gln	Asp	Gly	Ala	Ile	Ala	Asn	Glu	Tyr	Leu	Tyr
			180					185					190		
Arg	Asn	Ala	Val	Pro	Gly	His	Pro	Glu	Leu	Asn	Arg	Met	Asn	Thr	Thr
		195					200					205			
Leu	Asp	Met	Gly	Gly	Asn	Asn	Ile	Ala	Ala	Ala	Gly	Ala	Ile	Thr	Ala
	210					215					220				
Ser	Gly	Asn	Ile	Thr	Thr	Ser	Ala	Asp	Ile	Ser	Ala	Arg	Asn	Val	Thr
225					230					235				240	
Ala	Thr	Gly	Thr	Val	Lys	Ala	Gly	Thr	Ala	Asp	Val	Ala	Gly	Glu	Thr
				245					250					255	
Tyr	Thr	Gly	Gly	Trp	Phe	Arg	Thr	Arg	Gly	Asp	Thr	Gly	Trp	Tyr	Asn
		260						265					270		
Glu	Lys	Trp	Gly	Gly	Gly	Trp	Tyr	Met	Ser	Asp	Ser	Thr	Trp	Val	Arg
	275						280					285			
Ser	Trp	Met	Asn	Lys	Asn	Val	Tyr	Thr	Gly	Gly	Glu	Met	Lys	Ala	Gly
	290				295						300				
Lys	Leu	Thr	Ala	Glu	Gly	Arg	Thr	Glu	Val	Gly	Glu	Tyr	Leu	Gln	Leu
305					310					315				320	
Lys	Gly	Val	Ala	Thr	Glu	Gly	Ala	Asn	Cys	Ser	Pro	Asn	Gly	Leu	Ala
				325					330					335	
Gly	Ile	Thr	Ser	Thr	Gly	Leu	Trp	Leu	Ser	Cys	Gln	Asn	Gly	Lys	Trp
		340						345					350		
Gly	Arg	Thr	Ala	Ala	Ser	Met	Arg	Leu	Asn	Thr	Thr	Ala	Gly	Val	Ile
		355					360					365			
Lys	Asp	Trp	Cys	Thr	Leu	His	Gly	Gln	Asp	Ser	Ala	Met	Val	Asn	Tyr
	370					375					380				
Asp	Tyr	Val	Arg	Tyr	Ala	Ile	Thr	Cys	Gly	Gly	Arg	Phe	Cys	Ala	Val
385					390					395				400	
Gly	Phe	Asn	Gln	Thr	Phe	Gly	Thr	Asn	Tyr	Ser	Phe	Gly	Leu	Ile	Thr
				405					410					415	
Glu	Ile	Gly	Pro	Gly	Phe	Asn	Tyr	Pro	Glu	Pro	Tyr	Lys	Thr	Pro	Asp
			420					425					430		
Ser	Thr	Asn	Val	Thr	Val	Thr	Cys	Val	Asn						
		435					440								

<210> 180
 <211> 313
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 180
 Val Ser Val Asn Pro Ile Ile Gln Ala Gln Phe Val Asp Leu Tyr Leu
 1 5 10 15
 Gly Glu Gly Phe Ala Asp Val Lys Gly Leu Ala Gly Ala Gly Ala Arg
 20 25 30
 Arg Val Glu Val Pro Arg Glu Trp Glu Ser His Val Gln Glu Leu Leu
 35 40 45
 Gln Ile Cys Arg Gln Thr Leu Glu Glu Leu Gln Asp Pro Glu Phe Ala
 50 55 60
 Ile Val Val Asp Gly Val Leu Leu Arg Val Thr Leu Leu Glu Asp Ala
 65 70 75 80
 Phe Ser Gly Ser Val Phe Val Leu Arg Arg Ser Ser Ala Gln Leu Arg
 85 90 95
 Glu Phe Gln Glu Ile Gly Tyr Pro Ser Glu Val Val Ser Ala Leu Met
 100 105 110
 Asp Pro Gln Leu Gln Gly Leu Val Leu Phe Cys Gly Glu Met Ala Thr
 115 120 125
 Gly Lys Thr Ser Ser Ala Ala Ser Leu Leu Leu Ala Arg Leu Gln Glu
 130 135 140
 Leu Gly Gly Val Gly Cys Ala Val Glu Asp Pro Gln Glu Thr Asn Leu
 145 150 155 160
 Ser Gly Gln His Gly Leu Gly Arg Cys Ile Gln Val Arg Thr Ser Arg
 165 170 175
 Arg Ser Gly Gly Tyr Ser Glu Ala Leu Leu Arg Thr Leu Arg Ala Gly
 180 185 190
 Ala Asp Leu Val Leu Ile Gly Glu Ile Arg Asp Glu Asp Thr Ala Tyr
 195 200 205
 Gln Ala Cys Lys Ala Ser Leu Thr Gly Ser Leu Val Ile Ala Thr Ile
 210 215 220
 His Ala Lys Ser Cys His Gln Ala Ile Glu Arg Leu Val Thr Leu Ala
 225 230 235 240
 Gln Pro Leu Ala Arg Asn Ala Tyr Asp Val Val Ala Glu Gly Ile Gln
 245 250 255
 Ala Val Ile Cys Gln Ala Leu Glu Ser Asp Gly Ser Ser Arg Arg Leu
 260 265 270
 Thr Ala Glu Pro Leu Leu Phe Thr Gly Asp Asp Gly Pro Ser Met Arg
 275 280 285
 Asp Lys Ile Arg Arg Lys Glu Ala His Leu Leu Gln Asp Asp Gln Ala
 290 295 300
 Arg Gln Ser Arg Gln Ser Leu Trp Arg
 305 310

<210> 181
 <211> 176
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 181
 Met Ser Thr Thr Gln Arg Thr Ser Arg Pro Thr Gln Gly Gly Phe Val
 1 5 10 15
 Ser Ile Glu Met Ile Ile Val Leu Ile Ile Ala Ile Gly Val Gly
 20 25 30
 Leu Gly Leu Ala Ala Ala Ala Gly Met Phe Ser Ser Ser Asn Ala Asn

		35					40				45						
Glu	Glu	Gln	Arg	Asn	Ile	Ser	Val	Ile	Ala	Ala	Asn	Ala	Arg	Ala	Leu		
	50					55					60						
Lys	Thr	Ser	Ser	Gly	Tyr	Gly	Ser	Ser	Gly	Thr	Asn	Leu	Ile	Pro	Ser		
65				70					75					80			
Leu	Ile	Ala	Ile	Asn	Gly	Val	Pro	Lys	Asn	Met	Ser	Val	Ser	Ser	Gly		
				85					90					95			
Val	Val	Tyr	Asn	Val	Tyr	Gly	Gly	Ser	Val	Thr	Val	Ser	Ser	Thr	Gly		
			100					105					110				
Met	Gly	Phe	Ser	Ile	Thr	Thr	Ser	Lys	Leu	Pro	Gln	Asp	Ala	Cys	Ile		
	115						120					125					
Thr	Leu	Ala	Thr	Lys	Ile	Ala	Lys	Asn	Thr	Phe	Glu	Gln	Thr	Lys	Ile		
	130					135					140						
Asn	Ser	Gly	Ser	Ser	Ile	Thr	Gly	Glu	Val	Thr	Thr	Ala	Ala	Ala	Thr		
145					150					155					160		
Gln	Ala	Cys	Ser	Ser	Asp	Ser	Asn	Ser	Ile	Thr	Trp	Thr	Tyr	Ser	Ser		
				165					170					175			

<210> 182
 <211> 359
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 182

Met	Gly	Gly	Phe	Trp	Glu	Gln	Leu	Gln	Phe	Ala	Phe	Tyr	Ser	Lys	Gln		
1				5					10					15			
Phe	Gly	Arg	Lys	Glu	Arg	Leu	Gln	Phe	Tyr	Glu	Ser	Met	Ser	Thr	Leu		
			20					25					30				
Leu	Glu	Asn	Gly	Val	Pro	Leu	Lys	Asp	Ala	Val	Ala	Glu	Val	His	Lys		
		35					40					45					
Ile	Phe	Ala	His	Glu	Gly	Gln	His	Pro	Phe	His	Pro	Val	Ala	Ile	Ala		
	50					55					60						
Ser	Arg	Glu	Ala	Leu	Met	Gly	Leu	Ser	Asn	Gly	Lys	Arg	Leu	Ala	Thr		
65				70					75					80			
Ala	Met	Ala	Leu	Tyr	Leu	Pro	Ala	Gln	Glu	Arg	Ala	Leu	Ile	Glu	Ala		
			85					90					95				
Gly	Glu	Met	Ser	Gly	Asn	Leu	Val	Gln	Ala	Met	Gly	Asp	Ala	Val	Ser		
			100					105					110				
Leu	Val	Glu	Ala	Gln	Ala	Arg	Ile	Arg	Ala	Thr	Ile	Trp	Gln	Ala	Leu		
	115						120					125					
Leu	Tyr	Pro	Ser	Ala	Leu	Ser	Ala	Met	Met	Val	Phe	Leu	Leu	Cys	Ile		
	130					135					140						
Val	Ala	Tyr	Arg	Met	Val	Pro	Ser	Leu	Ala	Arg	Leu	Ser	Asp	Pro	Val		
145				150					155					160			
Thr	Trp	Thr	Gly	Pro	Leu	Ala	Thr	Leu	Asn	Ala	Ile	Ala	Ser	Phe	Val		
			165					170						175			
Thr	Gly	Pro	Gly	Ile	Tyr	Val	Leu	Val	Ala	Val	Ile	Thr	Leu	Thr	Val		
			180					185					190				
Val	Val	Ile	Val	Thr	Leu	Pro	Thr	Tyr	Arg	Trp	Lys	Gly	Arg	Val	Trp		
			195				200					205					
Leu	Asp	Arg	Thr	Leu	Pro	Pro	Trp	Ser	Ile	Tyr	Arg	Met	Leu	Gln	Gly		
	210					215					220						
Thr	Thr	Phe	Leu	Leu	Asn	Met	Ala	Val	Met	Leu	Asn	Ala	Gly	Ile	Arg		
225					230					235				240			
Pro	Tyr	Asp	Ser	Leu	Ala	Ser	Met	Ile	Lys	Ile	Ser	Pro	Pro	Trp	Leu		
			245						250					255			
Lys	Gln	Arg	Leu	Glu	Ala	Ala	Arg	Tyr	Gly	Val	Gly	Leu	Gly	Gln	Asn		
			260					265						270			

Leu Gly Val Ala Leu Arg Ser Ala Gly His Asp Phe Pro Asp Arg Gln
 275 280 285
 Ala Ile Gln Tyr Leu Cys Ile Leu Ala Asn Arg Gly Gly Phe Ser Glu
 290 295 300
 Ala Leu Val Lys Phe Ser Arg Arg Trp Gln Glu Thr Ser Leu Lys Gln
 305 310 315 320
 Ile Glu Leu Ala Ala Gly Leu Val Lys Asn Phe Ala Leu Ile Phe Ile
 325 330 335
 Gly Ala Leu Met Ile Leu Val Leu Leu Gly Ala Tyr Gln Ala Gln Gln
 340 345 350
 Leu Ile Gln Ser Met Asn His
 355

<210> 183

<211> 526

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 183

Met Thr Asn Leu Gln Ile Ala Ala Leu Ala Gln Pro Ser Met Val Thr
 1 5 10 15
 Gln Leu Leu Thr Ala Asp Gly Gly Glu Trp Glu Val Ser Lys His Leu
 20 25 30
 Gln Glu Ile Met Ala Leu Ala Ala Asp Gly Thr Leu Tyr Leu Ser Glu
 35 40 45
 Ser His Gln Asn Asp Ile His Val Leu Ser Phe Ile Asp Arg Leu Asp
 50 55 60
 Arg Arg Gly Phe Arg Tyr Gln Leu Asn Leu Thr Asp Leu Gln Thr Ile
 65 70 75 80
 His Gln Leu Tyr Arg Ala Val Ala Met Asp Gly Leu Val Asp Ser Asp
 85 90 95
 Gly Gln Arg Ala Thr Gln Met Gln Glu Arg Val Val Lys Ile Ile Arg
 100 105 110
 Lys Ala Thr Glu Leu Arg Ala Ser Asp Val His Phe Val Val Ser Pro
 115 120 125
 Ala Gly Thr Gly Ser Lys Ile Arg Phe Arg Val Asp Gly Leu Leu Lys
 130 135 140
 Thr Val Glu Gln Phe Arg Ser Gln Glu Leu His Glu Leu Cys Ala Thr
 145 150 155 160
 Ile Tyr Gln Ser Met Cys Asp Val Ala Glu Pro Leu Phe Lys Pro Gln
 165 170 175
 Leu Asp Gln Asp Ala Arg Met Ser Gln Thr Phe Val Glu Lys Leu Asn
 180 185 190
 Leu Phe Ser Ala Arg Ile Ala Thr Arg Pro Arg Ala Gly Gly Phe Leu
 195 200 205
 Met Ile Leu Arg Leu Leu Tyr Asp Asp Thr Gly Leu Asp Ser Leu Glu
 210 215 220
 Gln Leu Gly Tyr Leu Pro Glu Gln Asn Ala Leu Phe Asp Arg Met Met
 225 230 235 240
 Arg Met Pro Tyr Gly Ile Asn Ile Leu Ser Gly Pro Thr Gly Ser Gly
 245 250 255
 Lys Ser Met Thr Leu Lys Val Thr Leu Glu Gly Leu Asp Lys Leu His
 260 265 270
 Gly Gly Ser Lys His Ile Leu Thr Ile Glu Asp Pro Pro Glu Tyr Arg
 275 280 285
 Ile Arg Gly Glu Gly Ile Asn Gln Thr Pro Leu Val Tyr Asp Ala Thr
 290 295 300
 Asp Pro Asp Ala Glu Arg Gln Ala Trp Ala Ala Gly Ile Ala Asn Gly

305					310					315				320
Met	Arg	Leu	Asp	Pro	Asp	Tyr	Met	Met	Ile	Gly	Glu	Val	Arg	Asp
				325					330					335
Phe	Ala	Ala	Val	Ala	Ala	Phe	Arg	Gly	Ala	Met	Thr	Gly	His	Gly
			340					345					350	
Trp	Ser	Thr	Leu	His	Thr	Asn	Ser	Ala	Ile	Gly	Ile	Val	Gln	Arg
		355					360					365		
Lys	Asp	Leu	Gly	Val	Asp	Pro	Gly	Leu	Leu	Phe	Asp	Pro	Ala	Leu
	370					375					380			
Thr	Gly	Leu	Ile	Asn	Gln	Ser	Leu	Leu	Pro	Lys	Leu	Cys	Pro	His
385					390					395				400
Lys	Val	Arg	Phe	Gln	Asp	His	Gln	Asp	Gln	Leu	Ala	Pro	Asp	Leu
			405						410					415
Glu	Arg	Val	Arg	Arg	Leu	Thr	Asp	Val	Ser	Gln	Val	His	Val	Lys
		420					425						430	
Pro	Gly	Cys	Gln	Ala	Cys	Arg	Gly	Ser	Gly	Val	Asn	Gly	Arg	Ser
		435					440					445		
Val	Ala	Glu	Val	Val	Leu	Pro	Thr	Leu	Ala	Phe	Met	Arg	Val	Phe
	450				455						460			
Lys	Gly	Gly	Pro	Ala	Glu	Ala	Arg	Asn	Tyr	Trp	Val	Lys	Thr	Met
465					470					475				480
Gly	Ile	Thr	Lys	His	Ala	His	Ala	Ile	Arg	Arg	Ile	Asn	Glu	Gly
			485						490					495
Phe	Asp	Pro	Gln	Met	Val	Glu	Asp	Phe	Ile	Gly	Pro	Leu	Asp	Phe
		500						505					510	
Glu	His	Leu	Leu	Asp	Asp	Ser	Phe	Tyr	Ser	Gln	Glu	Ala	Cys	
		515					520					525		

<210> 184

<211> 177

<212> PRT

<213> Pseudomonas aeruginosa

<400> 184

Met	Arg	Thr	Glu	Pro	Ile	Gly	Met	Ala	Val	Ala	Val	Leu	Phe	Leu	Leu
1				5				10						15	
Ala	Ser	Gly	Gln	Ala	Cys	Ala	Gly	Thr	Val	Gly	Glu	Leu	Ala	Glu	Ile
			20				25						30		
Gln	Ala	Gln	Ala	Ile	Leu	Thr	Glu	Ala	Lys	Val	Arg	Leu	Ala	Thr	Ala
		35					40					45			
Gln	Arg	Gln	Leu	Glu	Gly	Lys	Gly	Glu	Thr	Gly	Gln	Val	Val	Ser	Ala
	50				55					60					
Gln	Gly	Gln	Thr	Phe	Ala	Met	Pro	Val	Pro	Ala	Ala	Pro	Pro	Thr	Ile
65				70					75					80	
Thr	Gln	Pro	Val	Pro	Pro	Val	Val	Arg	Thr	Ile	Tyr	Gly	Ala	Gly	Gly
			85					90						95	
Lys	Met	Thr	Ala	Thr	Phe	Leu	Phe	Pro	Gly	Gly	Tyr	Glu	Val	Asp	Ala
		100						105					110		
Ala	Ser	Gly	Ala	Glu	Leu	Pro	Gly	Lys	Tyr	Arg	Val	Glu	Ser	Ile	Ser
		115					120					125			
Leu	Asp	Gln	Val	Val	Leu	Thr	Asp	Lys	Asp	Gly	Asn	Arg	Val	Pro	Val
	130					135					140				
Gly	Phe	Ser	Ser	Val	Ala	Pro	Thr	Gln	Ala	Ser	Ser	Thr	Ala	Gln	Gly
145					150				155					160	
Ala	Ser	Val	Pro	Pro	Ala	Leu	Pro	Gly	Ala	Val	Pro	Gln	Pro	Phe	Ile
				165				170						175	
Gln															

<210> 185
 <211> 441
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 185

Met	Glu	Lys	Pro	Asp	Leu	Gly	Ser	Arg	Gly	Pro	Asp	Val	Ser	Ile	Leu
1				5					10					15	
Ser	Tyr	His	Gly	Asn	Lys	Phe	Val	Ser	Gly	Leu	Phe	Trp	Arg	Pro	Leu
			20					25					30		
Ser	Ser	Gln	Arg	Gln	Tyr	Met	Lys	Glu	Ala	Arg	Lys	Leu	Gly	Lys	Glu
		35					40					45			
Glu	His	Leu	Asp	Ile	Val	Ala	Ile	Arg	His	Ser	Pro	Thr	Val	Ile	Gln
	50					55					60				
Ala	Gly	Phe	Val	Ser	Lys	Ser	Gln	Gly	Ala	Val	Lys	Gly	Met	Tyr	Ser
65					70					75					80
Leu	Ala	Ser	Ala	Leu	Ser	Gly	Gln	Phe	Asp	Gly	Asp	Phe	Leu	Ala	Cys
				85					90					95	
Trp	Lys	Val	Asp	Glu	Asp	Arg	Tyr	Ala	Leu	Val	Ala	Thr	Leu	Asp	Gly
			100					105					110		
Ala	Ile	Val	Pro	Gly	Gln	Asp	Leu	Val	Thr	Thr	Leu	Asp	Glu	Ala	Arg
		115					120					125			
Asp	Arg	Val	Arg	Lys	Leu	Ser	Thr	Arg	Gly	Val	Leu	Arg	Asn	Ala	Gln
	130					135					140				
Val	Phe	Val	Pro	Glu	Gly	Phe	Asp	Phe	Pro	Val	Lys	Asp	Phe	Asp	Ile
145					150					155					160
Glu	Glu	Leu	Leu	Ala	Pro	Lys	Arg	Leu	Arg	Arg	Asp	Tyr	Arg	Leu	Arg
				165					170					175	
Gln	Leu	Thr	Phe	Gly	Leu	Ser	Ala	Arg	Glu	Trp	Thr	Ala	Val	Ala	Leu
			180					185					190		
Leu	Gly	Cys	Val	Val	Gly	Gly	Ser	Leu	Thr	Ala	Tyr	Tyr	Leu	Trp	Asn
	195						200					205			
Ala	His	Gln	Glu	Glu	Leu	Ala	Arg	Gln	Ala	Ala	Leu	Leu	Glu	Glu	Gln
	210					215					220				
Arg	Arg	Leu	Ala	Glu	Leu	Ala	Glu	Lys	Asn	Ala	Gln	Ala	Lys	Gln	Pro
225					230					235					240
Leu	Asp	Leu	Ala	Ser	Leu	Gln	Lys	Pro	Trp	Thr	Leu	Ile	Pro	Asp	Leu
				245					250					255	
Glu	Asp	Met	Leu	Arg	Ala	Cys	Ser	Lys	Ala	Thr	Gly	Val	Leu	Ser	Leu
		260					265						270		
Ser	Ile	Gln	Gly	Trp	Leu	Phe	Glu	Ser	Ser	Lys	Cys	Asp	Gly	Arg	Val
		275					280					285			
Leu	Val	Ala	Thr	Tyr	His	Arg	Thr	Gly	Asn	Ser	Thr	Ala	Ala	Asp	Leu
	290					295					300				
Thr	Ala	Ala	Ser	Gln	His	Leu	Phe	Ala	Asp	Arg	Pro	Ala	Phe	Val	Ile
305					310					315					320
Asp	Asn	Gly	Asn	Thr	Ala	Ala	Leu	Lys	Val	Asp	Leu	Lys	Val	Ala	Ile
				325					330					335	
Gly	Ser	Asp	Glu	Pro	Leu	Leu	Pro	Ala	Asp	Asp	Val	Leu	Gln	Ala	Leu
			340					345					350		
Thr	Ser	His	Leu	Tyr	Arg	Gln	Gly	Val	Glu	Pro	Lys	Leu	Ser	Ile	Ser
		355					360					365			
Gln	Glu	Thr	Thr	Pro	Pro	Leu	Pro	Gly	Ala	Glu	Ala	Ala	Thr	Glu	Gln
		370				375					380				
Gln	Val	Val	Leu	Pro	Ser	Trp	Lys	Lys	Phe	Thr	Phe	Ser	Ala	Gln	Thr
385					390					395					400
Arg	Leu	Pro	Ala	Asp	Leu	Thr	Phe	Gln	Gly	Leu	Pro	Ala	Ala	Gly	Val
				405					410					415	

Arg Ile Thr Asn Leu Glu Thr Thr Leu Lys Asp Ser Gln Leu Asp Trp
420 425 430
Thr Val Thr Gly Glu Ile Tyr Ala Asn
435 440

<210> 186
<211> 540
<212> PRT
<213> *Pseudomonas aeruginosa*

<400> 186
Ile Val Cys Glu Ala Thr Ala Asp Ser Ala Ser Thr Ile Ala Ala Gln
1 5 10 15
Val Arg Asn Thr Arg Pro Asp Arg Arg Asp Thr Val Val Phe Ser Asp
20 25 30
Lys Pro Trp Val Ser Thr Lys Pro Leu Ser Val Ser His Thr Leu Ser
35 40 45
Ser Asp Cys Ile Val Thr Trp Arg Pro Ala Gly Ala Ala Ser Leu Gln
50 55 60
Glu Ala Ala Gln Glu Val Ile Asn Gln Cys His Met Ala Val Ser Ile
65 70 75 80
Thr Pro Asp Ala Leu Asn Pro Ala Ala Phe Ala Val Gln Pro Gln Gln
85 90 95
Arg Ala Ser Asn Ala Pro Pro Pro Ile Gln Gly Gly Gln Asp Met Ala
100 105 110
Thr Met Leu Phe Pro Ala Ser Val Ala Asn Gly Met Ser Leu Gly Ala
115 120 125
Gly Gly Ser Met Gly Ser Ser Phe Gly Ser Tyr Gly Pro Arg Ser Leu
130 135 140
Tyr Asn Ile Lys Trp Asn Gly Lys Val Ser Gly Phe Leu Asp Leu Ile
145 150 155 160
Ala Ala Arg Ala Gly Val Ser Trp Arg Tyr Asn Pro Thr Glu Lys Arg
165 170 175
Val Glu Phe Tyr Tyr Leu Asp Thr Arg Thr Phe Arg Met Tyr Ala Phe
180 185 190
Asp Asp Val Asn Thr Val Asp Ser Thr Val Arg Ser Gly Met Thr Thr
195 200 205
Ala Ala Gly Ile Ser Gly Asp Gly Ser Gly Ser Thr Gly Gln Asn Gly
210 215 220
Ser Ser Gly Ile Ser Gly Asp Ser Gly Ser Lys Gln Thr Thr Ser Ser
225 230 235 240
Glu Leu Lys Thr Ser Ile Leu Ser Asp Ile Glu Asn Ser Ile Asn Ser
245 250 255
Met Leu Thr Pro Ser Met Gly Arg Met Ser Leu Ser Arg Ala Thr Gly
260 265 270
Thr Leu Thr Val Thr Asp Arg Pro Glu Val Leu Asn Arg Val Gln Gln
275 280 285
Leu Val Asn Arg Glu Asn Glu Ser Ile Thr Lys Gln Val Leu Leu Asn
290 295 300
Val Asn Val Leu Ser Val Ala Leu Thr Asp Lys Asp Gln Leu Gly Ile
305 310 315 320
Asp Trp Asn Leu Val Tyr Lys Ser Leu Asn Asn Lys Trp Gly Ile Gly
325 330 335
Leu Lys Asn Thr Met Pro Gly Ile Asp Gln Ser Ala Ile Ser Gly Ser
340 345 350
Val Ser Ile Leu Asp Thr Ala Asn Ser Ala Trp Ala Gly Ser Lys Ala
355 360 365
Met Val Gln Ala Leu Ala Gln Gln Gly Arg Val Ser Thr Val Arg Ser

370	375	380
Pro Ser Val Thr Thr	Leu Asn Leu Gln Ser	Ala Pro Ile Gln Ile Gly
385	390	395
Arg Tyr Asp Ser Tyr	Leu Ala Ser Ser Gln	Ile Ser Asn Val Ala Gln
	405	410
Val Gly Ser Thr Thr	Ser Leu Ile Pro Gly	Ala Val Thr Ser Gly Tyr
	420	425
Asn Met Ser Leu Leu	Pro Phe Val Met Glu	Ser Gly Glu Met Leu Leu
	435	440
Lys Ile Asn Ile Asn	Met Thr Ser Arg Pro	Thr Phe Glu Met Gln Thr
	450	455
Ser Gly Asp Ser Lys	Ala Gln Phe Pro Ser	Tyr Asp Ile Gln Leu Phe
465	470	475
Asp Gln Lys Val Arg	Leu Arg Ser Gly Glu	Thr Leu Val Leu Ser Gly
	485	490
Phe Asp Gln Thr Thr	Glu Asp Thr Asn Lys	Val Gly Thr Gly Asp Ala
	500	505
Gly Phe Phe Gly Leu	Gly Gly Gly Leu Thr	Arg Asn Thr Lys Arg Glu
	515	520
Val Ile Val Val Leu	Ile Thr Pro Val Val	Leu Gly
	530	535
		540

<210> 187

<211> 374

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 187

Met Thr Arg Gln Leu Thr Thr	Leu Thr Leu Cys Leu Leu Leu	Ala Ser
1	5	10
Cys Thr Thr His Lys Ala Glu	Pro Ala Arg Pro Ala Phe	Asp Ser Ser
	20	25
Arg Asn Pro Asp Leu Leu Ser	Pro Asp Leu Tyr Pro Asn	Gly Val Gln
	35	40
Pro Glu Lys Glu Pro Val Val	Arg Tyr Gly Arg Tyr Thr	Leu Val Ser
	50	55
Thr Gln Pro Asp Ala Gly Gln	Arg Asp Leu Met Ala Gln	Ile Ile Asp
65	70	75
Val Thr Ile Pro Ser Ser Met	Asn Pro Ser Val Lys Asp	Ala Met Gln
	85	90
Tyr Val Met Ser Arg Ser Gly	Tyr Ser Leu Cys Pro Ala	Asp Ala Gly
	100	105
His Val Asn Ile Leu Tyr Thr	Arg Pro Leu Pro Ala Ala	Gln Tyr Lys
	115	120
Leu Gly Pro Met Thr Leu Arg	Asn Thr Leu Gln Val Leu	Ser Gly Pro
	130	135
Ala Trp Gln Val Lys Val Asp	Glu Val Ala Arg Gln Val	Cys Phe Val
145	150	155
Leu Arg Pro Gly Tyr Gln Leu	Pro Pro Ala Pro Arg Pro	Lys Pro Val
	165	170
Gln Gln Leu Tyr Ala Lys Pro	Ala Ala Pro Thr Pro Pro	Ala Val Ala
	180	185
Gln Pro Ser Ser Thr Glu Lys	Val Ser Thr Leu Glu Ser	Pro Ile Val
	195	200
Val Ala Ser Val Pro Thr Pro	Ala Pro Ile Thr Thr	Ser His Ala Pro
	210	215
Ala Lys Lys Pro Glu Ser Thr	Thr Val Leu Pro Pro	Ala Ala Pro Ala
225	230	235
		240

				85					90					95			
Glu	Arg	Val	Asp	Val	Met	Ser	Ala	Val	Leu	His	Lys	Met	Glu	Ser	Asp		
			100					105					110				
Leu	Glu	Gly	Tyr	Lys	Lys	Thr	Phe	Thr	Lys	Gly	Pro	Phe	Ile	Asp	Tyr		
		115					120					125					
Glu	Lys	Gln	Ser	Ser	Leu	Ser	Ile	Tyr	Glu	Ala	Trp	Val	Lys	Ile	Trp		
	130					135					140						
Glu	Lys	Asn	Ser	Trp	Glu	Glu	Arg	Lys	Lys	Tyr	Pro	Phe	Gln	Gln	Leu		
145					150					155					160		
Val	Arg	Asp	Glu	Leu	Glu	Arg	Ala	Val	Ala	Tyr	Tyr	Lys	Gln	Asp	Ser		
			165					170						175			
Leu	Ser	Glu	Ala	Val	Lys	Val	Leu	Arg	Gln	Glu	Leu	Asn	Lys	Gln	Lys		
		180						185					190				
Ala	Leu	Lys	Glu	Lys	Glu	Asp	Leu	Ser	Gln	Leu	Glu	Arg	Asp	Tyr	Lys		
	195					200					205						
Thr	Arg	Lys	Ala	Asn	Leu	Glu	Met	Lys	Val	Gln	Ser	Glu	Leu	Asp	Gln		
	210				215					220							
Ala	Gly	Ser	Ala	Leu	Pro	Pro	Leu	Val	Ser	Pro	Thr	Pro	Glu	Gln	Trp		
225				230					235						240		
Leu	Glu	Arg	Ala	Thr	Arg	Leu	Val	Thr	Gln	Ala	Ile	Ala	Asp	Lys	Lys		
			245					250						255			
Gln	Leu	Gln	Thr	Thr	Asn	Asn	Thr	Leu	Ile	Lys	Asn	Ala	Pro	Thr	Pro		
		260					265						270				
Leu	Glu	Lys	Gln	Lys	Ala	Ile	Tyr	Asn	Gly	Glu	Leu	Leu	Val	Asp	Glu		
	275					280					285						
Ile	Ala	Ser	Leu	Gln	Thr	Arg	Leu	Asp	Lys	Leu	Asn	Ala	Glu	Thr	Thr		
	290				295			300									
Arg	Arg	Arg	Thr	Glu	Ala	Glu	Arg	Lys	Ala	Ala	Glu	Glu	Gln	Ala	Leu		
305				310					315						320		
Gln	Asp	Ala	Val	Lys	Phe	Thr	Ala	Asp	Phe	Tyr	Lys	Glu	Val	Thr	Glu		
		325						330						335			
Lys	Phe	Gly	Ala	Arg	Thr	Ser	Glu	Met	Ala	His	Gln	Leu	Ala	Glu	Gly		
	340						345					350					
Ala	Arg	Gly	Lys	Asn	Ile	Arg	Ser	Ser	Ala	Glu	Ala	Ile	Asn	Ser	Phe		
	355					360					365						
Glu	Lys	His	Lys	Asp	Ala	Leu	Asn	Lys	Lys	Leu	Ser	Leu	Lys	Asp	Arg		
	370				375					380							
Gln	Ala	Ile	Ala	Lys	Ala	Phe	Asp	Ser	Leu	Asp	Lys	Gln	Met	Met	Ala		
385				390					395						400		
Lys	Ser	Leu	Glu	Lys	Phe	Ser	Lys	Gly	Phe	Gly	Val	Val	Gly	Lys	Ala		
		405						410					415				
Ile	Asp	Ala	Ala	Ser	Leu	Tyr	Gln	Glu	Phe	Lys	Ile	Ser	Thr	Glu	Thr		
		420					425						430				
Gly	Asp	Trp	Lys	Pro	Phe	Phe	Val	Lys	Val	Glu	Thr	Leu	Ala	Ala	Gly		
	435					440					445						
Ala	Ala	Ala	Ser	Trp	Leu	Val	Gly	Ile	Ala	Phe	Ala	Thr	Ala	Thr	Ala		
	450				455					460							
Thr	Pro	Ile	Gly	Ile	Leu	Gly	Phe	Ala	Leu	Val	Met	Ala	Val	Thr	Gly		
465				470					475						480		
Ala	Met	Ile	Asp	Glu	Gly	Leu	Leu	Glu	Lys	Ala	Asn	Asn	Leu	Val	Met		
			485					490						495			

Ser Ile

<210> 190
 <211> 657
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 190

Met	Asn	Arg	Pro	Arg	Leu	Val	Asn	Arg	Thr	Ser	Ala	Thr	Pro	Ser	Thr
1				5					10					15	
Leu	Leu	Gln	Arg	Ala	Ile	Phe	Asp	Gly	Tyr	Asp	Phe	Gly	Leu	Lys	Ile
		20						25					30		
Pro	Tyr	Ile	Ala	Gly	Ser	Asn	Arg	Ala	Leu	Leu	Glu	Leu	Ser	Gly	Phe
	35						40					45			
Phe	Ile	Ser	Ala	Arg	Glu	His	Pro	Leu	His	Arg	Tyr	Trp	Arg	Val	Pro
	50					55					60				
Lys	Gly	Lys	Leu	Leu	Pro	Glu	Leu	Asp	Thr	Leu	Tyr	Asn	Arg	Leu	Ala
65					70					75					80
Glu	Leu	Ala	Gly	Gly	Leu	His	Ser	Gln	Ser	Trp	Arg	Glu	Phe	Ser	Ser
			85						90					95	
Leu	Val	Glu	Ser	Ala	Gln	Ala	Ser	Leu	Asp	Arg	Gln	Ala	Phe	Thr	Trp
			100					105					110		
Gly	Met	Leu	Leu	Arg	Ile	Ala	Pro	Leu	Ala	Glu	Gly	Gly	Val	Leu	Leu
		115					120					125			
Ser	Gly	Glu	Phe	His	Pro	Gly	Val	Val	Ala	Val	Ala	Arg	Arg	Met	Arg
	130					135					140				
Gly	Val	Phe	Leu	Arg	Pro	Ser	Ser	Ser	Trp	Arg	Ile	Asp	Thr	Thr	Pro
145					150					155					160
Glu	Leu	Leu	Arg	Ser	Asn	Leu	Ile	Leu	Glu	Leu	Gly	Leu	Ala	Glu	Glu
				165					170					175	
Gln	Phe	Glu	Ile	Leu	Asp	Thr	Val	Gln	Glu	Leu	Leu	Ser	Asp	Gly	Ser
			180					185					190		
Phe	Ala	Pro	Ser	Thr	Glu	Leu	Pro	Ser	Met	Ser	Ile	Gly	Gly	Pro	Gln
		195					200					205			
Gln	Glu	Pro	Ala	Ala	Pro	Ser	Leu	Glu	Asp	Glu	Ser	Ala	Ser	Asp	Ile
	210					215				220					
Tyr	Leu	Ala	Ala	Val	Pro	Glu	Ile	Glu	Arg	Thr	Glu	Tyr	Ser	Ser	Ala
225					230					235					240
Asp	Ile	Glu	Ala	Ala	Leu	Gln	Gly	Tyr	Ser	Leu	Leu	Ala	His	Gln	Pro
				245					250					255	
Asp	Gly	Ile	Ala	His	Leu	Leu	Gln	Arg	Thr	Ser	Ala	Leu	Leu	Ala	Asp
			260				265						270		
Asp	Met	Gly	Leu	Gly	Lys	Thr	Arg	Gln	Ala	Val	Ile	Ala	Ala	Ser	Ile
	275						280					285			
Arg	Ala	Ala	Gly	Arg	Pro	Ile	Leu	Val	Ile	Thr	Leu	Ala	Thr	Leu	Leu
	290					295					300				
Ile	Asn	Trp	Gln	Arg	Glu	Ile	Gln	Glu	Val	Tyr	Pro	Ser	Ala	Thr	Val
305					310					315					320
Ala	Ile	Gln	Gln	Asp	Thr	Pro	Glu	Ala	Gln	Trp	Ile	Leu	Val	Asn	Tyr
				325					330					335	
Glu	Gln	Leu	Ser	Pro	Phe	Val	Ala	Asn	Ala	Ser	Arg	Phe	Ala	Val	Met
			340					345					350		
Val	Ile	Asp	Glu	Ala	Gln	Arg	Met	Lys	Glu	Pro	Thr	Ala	Gln	Cys	Thr
		355					360					365			
Arg	His	Gly	Phe	Asp	Ile	Ala	Ala	Gln	Val	Pro	Asn	Arg	Tyr	Leu	Leu
	370					375					380				
Thr	Gly	Thr	Pro	Val	Leu	Asn	Arg	Glu	Thr	Glu	Leu	His	Thr	Leu	Leu
385					390					395					400
Arg	Leu	Ser	Gly	His	Pro	Ile	Gly	Gln	Leu	Pro	Leu	Lys	Glu	Phe	Cys
				405					410					415	
Asp	Arg	Phe	Ala	Gly	Asn	Pro	Glu	Phe	Arg	Gln	Ser	Leu	Arg	Ala	Glu
			420					425					430		
Leu	Gly	Asp	Trp	Met	Leu	Arg	Arg	Arg	Lys	Asp	Val	Leu	Pro	Ser	Leu
	435						440					445			
Lys	Gly	Lys	Gln	Arg	Gln	Leu	Leu	Lys	Val	Ala	Leu	Ser	Thr	Glu	Glu
	450					455					460				

Arg Gln Gln Tyr Asp Val Leu Arg Leu Glu Asp Arg Pro Val Phe Ala
 465 470 475 480
 Arg Leu Gly Ala Leu Arg Arg Tyr Leu Glu Thr Val Lys Val Arg Val
 485 490 495
 Ala Met Asp Leu Leu Ser Glu Leu Asp Ala Glu Asp Lys Val Ile Leu
 500 505 510
 Phe Cys Glu Phe Lys Pro Thr Val Ala Ala Leu Lys Glu Leu Cys Glu
 515 520 525
 Gln Ala Gly His Gly Cys Val Thr Leu Val Gly Asn Asp Ser Leu Thr
 530 535 540
 Lys Arg Gln Lys Ala Ile Asp Arg Phe Gln Gln Asp Pro Asp Cys Arg
 545 550 555 560
 Val Phe Ile Cys Thr Thr Ala Ala Ala Gly Thr Gly Asn Asn Leu Thr
 565 570 575
 Ala Ala Asn Tyr Val Phe Phe Leu Gly Leu Pro Trp Thr Pro Gly Gln
 580 585 590
 Gln Glu Gln Ala Glu Asp Arg Ala Tyr Arg Asn Gly Gln Leu Arg Met
 595 600 605
 Val Val Val Lys Ile Pro Leu Val Glu Ala Thr Ile Asp Glu Gln Leu
 610 615 620
 Trp Gln Leu Leu Asn Ala Lys Arg Gln Val Ala Gln Asp Leu Ile Glu
 625 630 635 640
 Pro Glu Gln Val Asp Gly Asn Arg Ala Leu Leu Ala Ala Ser Leu Thr
 645 650 655
 Gly

<210> 191
 <211> 629
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 191
 Val Ala Pro Leu Asp Asn Ala Pro Pro Ser Gly Pro Leu Gln Asp Pro
 1 5 10 15
 Ser Leu Ala Arg Tyr Ser Glu Arg Gln Leu Ala Val Ala Asn Thr Trp
 20 25 30
 Ala Thr His Phe Ser Leu Ala Gly Thr Ala Arg Thr Lys Phe Ile Arg
 35 40 45
 His Tyr Leu Arg Ser Thr Ser Thr Thr Arg Cys Trp Cys Ile Thr Val
 50 55 60
 Ala Ala Asp Asn Gly Val Arg Tyr Thr Ile Met Arg Ala Gly Pro Leu
 65 70 75 80
 Leu Gln Val Phe Asp Gly Gln Leu Ile Gly Ala Trp Glu Cys Lys Pro
 85 90 95
 Ala His Arg Ile Pro Ala Ser Thr Pro Ser Arg Ala Gly Ala Leu Lys
 100 105 110
 Leu Leu Gln Arg Leu Gln Lys Phe Asp Asp Ala Val Ala Val Leu Ser
 115 120 125
 Ser Tyr Thr Lys Arg Ala His Asp Leu Ala Thr Gln Met Ala Arg Asp
 130 135 140
 Asp Leu Gly Leu Gln His Arg Leu Val Tyr Pro Ser His Ser Asn Lys
 145 150 155 160
 Arg Tyr Tyr Ala Pro Arg His Gln Phe Tyr Leu Lys Gln Ile Gly Ala
 165 170 175
 Val Leu Arg Thr Phe Arg Gln Val Leu Asp Gln Asp Leu Leu Phe Ala
 180 185 190
 Ile Arg Ser Val Arg Cys Leu Ser Pro Gln Leu Tyr Asn Trp Leu Ala

<212> PRT
 <213> Pseudomonas aeruginosa

<400> 192

Met	Arg	Lys	Glu	Asn	Ile	Ser	Ala	Glu	Ile	Thr	Glu	Arg	Ala	Phe	Asp
1				5					10					15	
Phe	Phe	Tyr	Trp	Phe	Ser	Arg	Phe	Glu	Phe	Ser	Leu	Lys	Glu	Asn	Gly
			20					25					30		
Tyr	Leu	Lys	Asn	Tyr	Lys	Pro	Gly	Ala	Arg	Ala	Glu	Pro	Gly	Trp	Glu
		35					40					45			
Asn	Phe	Val	Gln	Asn	His	Ser	Asp	Lys	Tyr	Ser	Leu	Ser	Gln	Ser	Ala
		50				55					60				
Thr	Ala	Leu	Ile	Glu	Gln	Ser	Pro	Glu	Gln	Gln	Ile	Val	Leu	Pro	Gly
65					70					75					80
Arg	Glu	Leu	Gly	Trp	Arg	Pro	Val	Lys	Leu	Asp	Glu	Asp	Lys	Ser	Asp
			85						90					95	
Leu	Ala	Arg	Val	Ala	Arg	Leu	Leu	Lys	Thr	Val	Arg	Asn	Asn	Leu	Phe
			100					105					110		
His	Gly	Gly	Lys	His	Gly	Gly	Ala	Asn	Trp	Asp	Asn	Pro	Ala	Arg	Thr
		115					120					125			
Ile	His	Leu	Ile	Leu	Leu	Ser	Lys	Ala	Ile	Leu	Asp	Glu	Phe	Ala	Ala
		130				135					140				
Leu	Gly	Asp	Phe	Glu	Ala	Asp	Tyr	Lys	Arg	Ile	Tyr				
145					150					155					

<210> 193
 <211> 641
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 193

Met	His	Ile	Val	Ile	Ile	Glu	Ala	Pro	Gly	Lys	Leu	Lys	Lys	Leu	Arg
1				5					10					15	
Ser	Leu	Leu	Pro	Ser	Ile	Arg	Pro	Asp	Val	Thr	Trp	Gln	Val	Glu	Ala
			20					25					30		
Thr	Ala	Gly	His	Ile	Arg	Asp	Leu	Pro	Val	His	Gly	Gln	Asp	Pro	Gln
		35				40						45			
Met	Leu	Thr	Val	Gly	Val	Gly	Gln	Asp	Phe	Lys	Pro	His	Tyr	Gln	Ile
	50					55				60					
Leu	Ser	Gly	Lys	Glu	Lys	Thr	Val	Ala	Arg	Leu	Lys	Glu	Leu	Arg	Gln
65					70					75					80
Lys	Ala	Val	Glu	Ile	Tyr	Val	Ala	Ser	Asp	Pro	Asp	Arg	Glu	Gly	Glu
			85						90					95	
Ser	Ile	Gly	Trp	His	Ile	Leu	Gln	Ala	Ala	Gly	Ile	Lys	Asn	Tyr	Lys
			100					105					110		
Arg	Val	Ala	Phe	Lys	Glu	Ile	Thr	Lys	Ser	Cys	Ile	Thr	Ala	Glu	Leu
		115				120						125			
Ser	Ser	Pro	Arg	Arg	Leu	Asp	Leu	Pro	Lys	Val	Ala	Ser	Gln	Glu	Cys
		130				135					140				
Arg	Arg	Val	Ile	Asp	Arg	Leu	Val	Gly	Tyr	Leu	Val	Thr	Pro	Glu	Leu
145					150					155					160
Arg	Arg	Val	Met	Gly	Arg	Pro	Thr	Thr	Ala	Gly	Arg	Val	Gln	Ser	Val
			165						170					175	
Ala	Val	Tyr	Leu	Val	Val	Leu	Arg	Glu	Arg	Glu	Ile	Arg	Ala	Phe	Thr
		180						185					190		
Ala	Ile	Lys	His	Phe	Gly	Val	Glu	Leu	Thr	Phe	Val	Ser	Pro	Ser	Asp
		195					200						205		
Gly	Arg	Thr	Trp	Thr	Ala	Glu	Trp	Asp	Pro	Val	Pro	Val	Phe	Ala	Ser

210		215		220
Glu Glu Phe Pro Tyr Val	Gln Asp Arg Gln Leu Ala Glu Leu Val Gly			
225	230	235		240
Ala Ile Arg Asn Val Ile	Val Glu Thr Cys Ile Asp Ser Glu Glu Thr			
	245	250		255
Asp Ala Pro Pro Ala Pro	Phe Ile Ser Ser Ser Leu Gln Met Ala Ala			
	260	265		270
Gly Asn Ala Leu Lys Trp Ser	Pro Asp Lys Thr Met Lys Val Ala Gln			
	275	280		285
Arg Leu Tyr Glu Gln Gly Leu	Ile Thr Tyr His Arg Thr Asp Asn Pro			
	290	295		300
Asn Ile Ser Lys Asp Ser Met	Pro Asp Ile Arg Ala Val Ala Lys Ala			
305	310	315		320
Leu Gly Leu Lys Cys Val Glu	Gln Gln Arg Met Phe Lys Ala Asp Gln			
	325	330		335
Asp Ala Gln Glu Gly His Pro	Ala Ile Thr Pro Thr Asp Trp Met Ala			
	340	345		350
Ala Ala Ala Gly Glu Thr Ala	Asp Glu Gln Ala Leu Tyr Gln Leu Ile			
	355	360		365
Arg Val Arg Ala Leu Ala Ser	Gln Ile Glu Ala Ala Val Tyr Ala Val			
	370	375		380
Arg Thr Ile Thr Leu Leu Gly	Val Gly Pro Asp Lys Lys Pro Leu Arg			
385	390	395		400
Phe Gly Ala Lys Gly Lys Leu	Leu Asn Val Pro Gly Trp Arg Lys Leu			
	405	410		415
Leu Gln Gly Asp Asp Ala Glu	Glu Gln Lys Asn Glu Thr Pro Ser Asn			
	420	425		430
Pro Ile Pro Ile Pro Ala Leu	Glu Pro Arg Gln Ile Leu Lys Val Tyr			
	435	440		445
Ser Gly Glu Val Leu Glu Lys	Lys Thr Thr Pro Pro Lys Arg Phe Thr			
	450	455		460
Asp Ala Ser Leu Val Gly Glu	Met Lys Arg Arg Gly Ile Gly Arg Pro			
465	470	475		480
Ser Ser Tyr Ala Ser Ile Val	Lys Asn Ile Ile Asp Lys Gly Gln Val			
	485	490		495
Gln Met Lys Gly Arg Ser Leu	Ile Pro Gly Glu Leu Gly Glu Ala Thr			
	500	505		510
Ile Ala Leu Leu Glu His Asn	Phe Ser Phe Leu Ser Leu Asp Phe Thr			
	515	520		525
Arg Asn Leu Glu Val Ala Leu	Asp Arg Ile Ala Asn Ser Glu Asp Thr			
	530	535		540
Tyr Met Asn Val Val Gln Gln	Phe Tyr Gln Leu Leu Gln Thr Glu Leu			
545	550	555		560
Gln Thr Leu Arg Ala Leu Pro	Ser Ala Gln Asp Glu Pro Arg Ala Ser			
	565	570		575
Ser Thr Ala Ser Ile Ser Ser	Ala Pro Thr Ser Asp Phe Leu Cys Gly			
	580	585		590
Lys Cys Gly Leu Pro Leu Val	His Arg Lys Lys Ala Gly Lys Gly Gly			
	595	600		605
Phe Asp Phe Trp Gly Cys Ser	Gly Tyr Arg Thr Thr Gly Cys Lys Val			
	610	615		620
Ser Tyr Pro Thr Lys Ser Gly	Arg Pro Asp Phe Asp Asn Pro Arg Gly			
625	630	635		640
Leu				

<210> 194

<211> 77

<212> PRT
<213> Pseudomonas aeruginosa

<400> 194

Met	Asp	Gln	Ser	Leu	Cys	Thr	Cys	Met	Pro	Thr	Pro	Ile	Val	Asn	Pro
1				5					10					15	
Lys	Glu	Leu	Arg	Leu	Cys	His	Met	Leu	Val	Gly	Arg	Thr	Phe	Pro	Ile
			20					25					30		
Thr	Leu	Ile	Ala	Gly	Asp	His	Trp	Leu	Ser	Tyr	Asp	Gly	Ser	Ala	Trp
		35					40					45			
Trp	Val	Asp	Ala	Asp	Glu	Pro	Ala	Thr	Glu	Asp	Glu	Val	Ala	Ala	Leu
	50					55					60				
Leu	Val	Lys	Ala	Gly	Gly	Val	Thr	Thr	Cys	Trp	Cys	Gly			
65					70					75					

<210> 195
<211> 81
<212> PRT
<213> Pseudomonas aeruginosa

<400> 195

Val	Ala	Arg	Ala	Ser	Glu	Ser	Glu	Ile	Ser	Thr	Ser	Thr	Arg	Cys	Ser
1				5					10					15	
Val	Ser	Lys	Arg	Ala	Thr	Asp	Thr	Asp	Lys	Leu	Asp	Arg	Arg	His	Phe
			20					25					30		
Asn	Asp	Pro	His	Arg	Thr	Val	Arg	Ala	Ile	Gly	Ala	Glu	Ala	Ala	Arg
		35					40					45			
Lys	Gly	Leu	Arg	Val	Phe	Asp	Cys	Pro	Tyr	Ser	His	Pro	Ala	Met	Arg
	50					55					60				
Ala	Ser	Trp	Leu	Lys	Gly	Phe	Ala	Gln	Glu	Gln	Gln	Gln	Gln	Leu	Asp
65					70					75					80
Phe															

<210> 196
<211> 156
<212> PRT
<213> Pseudomonas aeruginosa

<400> 196

Met	Ala	Thr	Pro	Val	Phe	Trp	Glu	Ala	Asn	Ile	Gly	Ser	Ala	Pro	Glu
1				5					10					15	
His	Arg	Ser	Phe	Pro	Asn	Gly	Asn	Asn	Pro	Pro	Arg	Gln	Leu	Leu	Arg
			20					25					30		
Leu	Asn	Val	Met	Phe	Asp	Asn	Ser	Ile	Pro	Asp	Gly	Gln	Gly	Gly	Tyr
		35					40					45			
Lys	Asp	Arg	Gly	Gly	Phe	Trp	Cys	Ser	Val	Glu	Trp	Trp	His	Gln	Asp
	50					55					60				
Ala	Gln	Arg	Phe	Ala	Glu	Leu	Phe	Thr	Lys	Gly	Met	Arg	Val	Lys	Val
65					70					75					80
Glu	Gly	Arg	Ala	Ile	Met	Asp	Arg	Trp	Pro	Asp	Lys	Glu	Ser	Gly	Glu
			85						90					95	
Glu	Val	Gln	Ala	Leu	Lys	Val	Glu	Ala	Ser	Arg	Ile	Ser	Ile	Leu	Pro
		100						105					110		
His	Arg	Leu	Ala	Glu	Val	Thr	Leu	Leu	Pro	Thr	Gln	His	Gln	Gln	Ser
		115					120					125			
Arg	Asn	Val	Pro	Gln	Gln	Pro	Ala	Gln	Gln	Asp	Ala	Gln	Ser	Gln	Gln

130	135	140
Asp Tyr Asp Ser Ala Phe Asp Asp Asp Ile Pro Met		
145	150	155

<210> 197
 <211> 177
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 197
 Met Arg Gln Leu Asp Lys Asp Gln Gln Gly Ala Leu Glu Gln Ser Ala
 1 5 10 15
 Phe Arg Pro Leu Gln Gln Thr Ala Phe Gln Ala Leu Gln His Ser Ala
 20 25 30
 Ser Leu Lys Gly Leu Leu Lys Pro Phe Lys Gly Asn Arg Glu Leu Ala
 35 40 45
 Gln Leu Ala Glu Gln Cys Glu Ala Met Glu Gln Gly Leu Leu Glu Leu
 50 55 60
 Ala Gln Gly Leu Leu Ala Gln Val Arg Arg Pro Pro Phe Thr Leu Leu
 65 70 75 80
 Pro Thr Arg Leu Ile Glu Gln Arg Thr Ser Ala Arg Thr Thr Phe Leu
 85 90 95
 Arg Trp Gln His Ile Ala Ser Arg Arg Met Gly Val Gly Val Trp Thr
 100 105 110
 Glu Met Leu Arg Gln Asp Lys Thr Pro Glu Tyr Leu Leu Gln Asp Leu
 115 120 125
 Tyr Glu Met Glu Leu Gln Arg Ile Thr Leu Asn Met Gln Ile Ser Leu
 130 135 140
 Ile His Ser Ile Gly Lys Gln Ala Ala Glu Cys Ala Glu Lys Met Gly
 145 150 155 160
 Gln Ala Glu Ala Glu Phe Met Gly Arg Leu Gln Gln Ser Thr Asn His
 165 170 175
 His

<210> 198
 <211> 242
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 198
 Met Ala Glu Thr His Arg Leu Gln Ile Gly Ser Leu Arg Ser Asp Val
 1 5 10 15
 Ala Leu Thr Leu His Thr Tyr His Ala Ala Arg Ile Trp Thr Gly Arg
 20 25 30
 Gln Lys Ser Asp Ala Lys His Ser Ile Leu Gly Leu Ser Gly Phe Cys
 35 40 45
 Ala Tyr Val Asn Arg Met His Arg Gly Ala Ala Gln Asp Asp Pro Tyr
 50 55 60
 Ser Asp Trp Trp Leu Val Gln Ile Glu Glu Lys Val Glu Ser Cys Gln
 65 70 75 80
 Ala Ala Leu Glu Ala Ile Asp Gln Arg Leu Asp Asp Val Met Ala Lys
 85 90 95
 Leu Pro Ala Thr Leu Asp Ile Ser Glu Asn Leu Ser Val Thr Pro Val
 100 105 110
 Lys Val Pro Leu Phe Ile Ser Asn Pro Leu Gly Phe Lys Ala Val Tyr
 115 120 125

Leu Leu Thr Asn Tyr Asp Glu Leu Ala Arg Arg Ile Leu Leu Ala Gln
 130 135 140
 His Val Gly Leu Val Gly Arg Arg Asp Met Glu Val Trp Leu Asp Glu
 145 150 155 160
 Gly Ala Ser Val Leu Arg Ser Leu Phe Gly Leu Ala Gln Ser Tyr Gln
 165 170 175
 Phe Ser Gly Ala Thr Arg Asp Asp Phe Ala Ala Asn Asn Ala Arg Ala
 180 185 190
 Glu Ala Ala Arg Lys Met Tyr Glu Lys Phe Gly Glu Ile Pro Gln Asp
 195 200 205
 Ile Leu Glu Gly Thr Arg Arg Ser Asn Phe Ala Pro Pro Ile Thr Arg
 210 215 220
 Gly Arg Ser Asp Gly Asp Ala Asp Asp Ala Asp Arg Val Glu Leu
 225 230 235 240
 Glu Asp

<210> 199
 <211> 79
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 199
 Met Phe Leu Ser Met Ala Pro Phe Phe Leu Val Val Leu Val Leu Ser
 1 5 10 15
 Ala Leu Phe Thr Asp Ala Trp Asn Asp Arg Glu Leu Arg Leu Leu Leu
 20 25 30
 Met Leu Ile Val Phe Gly Tyr Ser Val Thr Val Leu Thr Ile Thr Val
 35 40 45
 Glu Met Tyr Arg Phe Glu Met Ala Glu Lys Ala Met Trp Gly Ala Leu
 50 55 60
 Cys Asn Lys Ala Asn Tyr Met Asn Cys Gln Pro Asp Tyr Gln Arg
 65 70 75

<210> 200
 <211> 91
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 200
 Met Arg Lys Ser Arg Ser Gly Val Val Phe Phe Gly Asp Ala Ala Arg
 1 5 10 15
 Ile Thr Leu Pro Gly Pro Asp Leu Arg Ala Ala Gly Glu Leu Gly Asp
 20 25 30
 Ser Thr Gly Ile Thr Pro Pro Gly Ala Asp Leu Arg Ala Ala Gly Glu
 35 40 45
 Leu Gly Asp Ser Thr Gly Ile Thr Leu Pro Gly Ile His Phe Gly Ile
 50 55 60
 Gly Gly Lys Met Gly Val Ser Gly Arg Asn Thr Ser Pro Lys Arg Gly
 65 70 75 80
 Ile Thr Thr His Glu Glu Leu Lys Gln Cys Ser
 85 90

<210> 201
 <211> 441
 <212> PRT

<213> Pseudomonas aeruginosa

<400> 201

Met	Arg	Leu	Ser	Arg	Phe	Pro	Ile	Ser	Thr	Leu	Leu	Asp	Ser	Ala	Ser	
1				5					10					15		
Gly	His	Leu	Glu	Ala	His	Leu	Tyr	Lys	Lys	Arg	Leu	Ala	Ala	Glu	Ser	
		20						25					30			
Gly	Glu	Pro	Leu	Ala	Gln	Gln	Tyr	Ser	Gly	Ile	Ile	Phe	Ser	Gly	Asn	
		35					40					45				
Pro	His	Glu	Thr	Val	Pro	Arg	Arg	Leu	Leu	Leu	Asp	Lys	Arg	Leu	Thr	
	50					55					60					
Pro	Leu	Glu	Arg	Asn	Cys	Trp	Gln	Val	Phe	Arg	Leu	Leu	Ile	Asn	Asp	
65				70					75					80		
Asp	Gly	Leu	Thr	Ala	Phe	Pro	Thr	Tyr	Glu	Gln	Leu	Arg	Pro	Tyr	Leu	
				85					90					95		
Gly	Met	Gln	Pro	Gly	Lys	Ile	Ala	Ser	Arg	Glu	Thr	Ile	Ala	Lys	Ala	
		100						105					110			
Leu	Thr	Val	Leu	Arg	Leu	Thr	Arg	Trp	Leu	Ser	Leu	Gly	Arg	Arg	Leu	
	115					120						125				
Arg	Asn	Asp	Leu	Asn	Gly	Gln	Val	Gln	Gly	Asn	Val	Tyr	Ile	Leu	His	
	130				135						140					
Asp	Glu	Pro	Val	Ser	Pro	Ala	Glu	Ala	Leu	Glu	Leu	Asp	Thr	Asp	Tyr	
145				150					155					160		
Met	Gln	Leu	Leu	Ser	Gln	Ser	Thr	Gly	His	Gly	Asn	Arg	Ala	Ile	Arg	
			165					170						175		
Glu	Ile	Gly	Gln	Ile	Ile	Trp	Arg	Glu	Phe	Arg	Asp	Asp	Pro	Asp	Val	
	180					185						190				
Gly	Arg	Arg	Leu	Pro	Thr	His	Leu	Glu	Lys	Leu	Glu	Gly	Arg	Leu	Asn	
	195				200							205				
His	Gln	Gln	Trp	Ala	Ile	Asp	Ser	Gln	Leu	Glu	Ala	Asp	Pro	Ala	Ala	
	210				215						220					
Glu	Phe	Gly	Ile	Arg	Thr	Leu	Ser	Asp	Leu	Pro	His	Ser	Thr	Pro	Ser	
225				230					235					240		
Ser	Asp	Ala	Glu	Leu	Ser	Glu	Ile	Ser	Gly	Lys	Gln	Cys	Ala	Leu	Pro	
		245						250						255		
Leu	Ser	Ser	Asp	Thr	Glu	Pro	Arg	Gln	Asn	Pro	Pro	Ser	Thr	Pro	Leu	
		260					265						270			
Val	Arg	Met	Pro	Asn	Ser	Tyr	Ser	Thr	Tyr	Thr	Tyr	Lys	Gln	Asp	Ser	
	275				280							285				
Val	Cys	Lys	Lys	Pro	Val	Gln	Pro	Arg	Ala	Arg	Glu	Glu	Ala	His	Pro	
	290				295						300					
Asn	Trp	Gln	Asp	Leu	Leu	His	Ala	Leu	Glu	Ala	Glu	Gln	Arg	Ile	Gln	
305				310					315					320		
Ala	Val	Ser	Ala	Leu	Arg	Arg	Val	Ser	Glu	Asp	Leu	Arg	Leu	Pro	Ile	
			325					330						335		
Ile	Glu	Gln	Trp	Gln	His	Arg	Cys	Ala	Gly	Gly	Thr	Val	Ser	Asn	Pro	
	340						345						350			
Phe	Gly	Tyr	Leu	Met	Thr	Leu	Ile	Gln	Arg	Ala	Val	Gln	Gly	Lys	Phe	
	355				360							365				
Asn	Ala	Ser	Trp	Ala	Pro	Glu	Pro	Ala	Glu	Arg	Thr	Ile	Pro	Ala		
	370				375					380						
Thr	Glu	Arg	Pro	Ile	Arg	Ala	Pro	Ala	Pro	Ser	Ser	Pro	Ile	Ala	Pro	
385				390					395					400		
Thr	Gln	Pro	Gln	Val	Gln	Pro	Arg	Gly	Asp	Thr	Arg	Thr	Gly	Ser	Glu	
			405					410					415			
Val	Leu	Ser	Arg	Leu	Lys	Asp	Leu	Ile	Arg	Pro	Arg	His	Gly	Ser	Ser	
		420					425						430			
Val	Pro	Ser	Glu	Arg	Gly	Asp	Asp	Ser								
	435					440										

<210> 202
 <211> 255
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 202
 Met Ser Lys Ser Thr Ile Asn Glu Ala Val Leu Thr Gln Val Leu Asn
 1 5 10 15
 His Leu Arg Asn Gly Gln Leu Arg Arg Cys Ala Glu Met Gly Leu Arg
 20 25 30
 Pro Glu Ile Leu Ala Gln Leu Gln Gln Pro Ala Val Met Ser Ile Leu
 35 40 45
 Thr Asn Thr Pro Val Ser Trp Val Asp Val Arg Val Asn Ile Asp Val
 50 55 60
 Met Glu Lys Ile Leu Ala Thr Ala Glu Arg Ser Ala Gln Glu Asp Leu
 65 70 75 80
 Gln Ile Glu Arg Ala Leu Lys Leu Gly Ala Thr Thr Thr Met Ile Gln
 85 90 95
 Ser Phe Phe Gly Leu Ser Pro Glu Asp Thr Ala Thr Lys Arg Leu Met
 100 105 110
 Leu Glu Ile His Pro Arg Arg Gly Arg Trp Arg Gln Leu Asp Glu Gln
 115 120 125
 Ile Glu Arg Gln Ile Trp Phe Arg Trp Glu His Leu Met Gln Glu Asn
 130 135 140
 Gln Val Arg Leu Glu Asp Ser Met Glu Leu Leu Asp Ile Ala Met Ile
 145 150 155 160
 Leu Thr Glu Glu Ile Asn Ala Gly Ile Glu Gln Asp Ser Pro Glu Phe
 165 170 175
 Ile Ser Leu Ala Ile Val Trp Ser Leu Ile Gln Ser Trp Leu Lys Asp
 180 185 190
 Gly Leu Tyr Pro Ser Gly Lys Ser Ser Gln Ser Gln Ala Gly Leu Gln
 195 200 205
 Lys Ser Gln Ser Thr Leu Tyr Leu Ala Ser Val Ser Ser His Leu Pro
 210 215 220
 His Ser Ala Pro Ser Ala Thr Thr Gln Val Asn Ala Glu Thr Glu Arg
 225 230 235 240
 Gln Gln Leu Leu Asn Leu Val Gln Ser Glu Gly Asp Thr Ala Pro
 245 250 255

<210> 203
 <211> 579
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 203
 Met Ser Met Ala Lys Ile Asn Pro Gln Asp Leu Lys Asp Arg Leu Leu
 1 5 10 15
 Ala Pro Gly Phe Thr Ala Pro Pro Lys Val Leu Glu Gln Leu Ser Asp
 20 25 30
 Pro Ile Ser Asp Thr Pro Met Arg Leu Thr Leu His Asp Val Leu Pro
 35 40 45
 Trp His Asp Asn Pro Arg Thr Thr Arg Asn Pro Lys Tyr Asp Glu Leu
 50 55 60
 Lys Glu Ser Ile Arg His Arg Gly Leu Asp Thr Pro Pro Pro Val Thr
 65 70 75 80
 Arg Arg Pro Gly Glu Asp Lys Tyr Arg Ile Arg Asn Gly Gly Asn Thr
 85 90 95

Arg	Leu	Glu	Ile	Leu	Asn	Asp	Leu	Tyr	Lys	Glu	Thr	Gly	Asp	Glu	Arg
			100					105					110		
Tyr	Phe	Ser	Phe	Asp	Cys	Leu	Phe	Lys	Pro	Trp	Asp	Lys	Gln	Arg	Gly
		115					120					125			
Glu	Ile	Ile	Ala	Leu	Thr	Gly	His	Leu	Ala	Glu	Asn	Asp	Leu	Lys	Gly
	130					135					140				
Asp	Leu	Lys	Phe	Ile	Glu	Arg	Ala	Val	Gly	Val	Gln	Lys	Ala	Lys	Phe
145					150					155					160
Leu	Tyr	Glu	Gln	Glu	Asn	Gly	Gly	Glu	Ser	Ile	Ser	Gln	Arg	Glu	Leu
				165					170					175	
Ala	Arg	Arg	Leu	Lys	Ala	Asp	Gly	Tyr	Pro	Val	Ser	Gln	Ser	His	Ile
			180					185					190		
Ser	Lys	Met	Leu	Asp	Thr	Ile	Glu	Val	Leu	Ala	Pro	Ala	Ile	Pro	Val
		195					200					205			
Met	Leu	Tyr	Ser	Gly	Leu	Gly	Lys	Pro	Gln	Ile	Glu	Lys	Leu	Leu	Ser
	210					215					220				
Leu	Arg	Lys	Ser	Ala	Ser	Ser	Cys	Trp	Ala	Arg	Leu	Tyr	Ala	Gly	Glu
225					230					235					240
Gly	Val	Asp	Phe	Glu	Met	Leu	Phe	Gln	Asp	Thr	Leu	Ala	Ile	Phe	Asp
				245					250					255	
Ser	Ser	Pro	Asp	Glu	Phe	Ile	Phe	Glu	Arg	Phe	Gln	Asp	Glu	Leu	Ile
			260					265					270		
Asp	Gln	Met	Lys	Arg	Pro	Leu	Gly	Leu	Arg	Tyr	Asp	Gln	Ile	Leu	Leu
		275					280					285			
Glu	Ile	Thr	Asn	Gly	Gln	Gln	Glu	Gln	Arg	Arg	Gly	Thr	Leu	Val	Asp
	290					295					300				
Leu	Pro	Thr	Pro	Ala	Ala	Pro	Pro	Gln	Leu	Pro	Pro	Ile	Gly	Gln	Glu
305					310					315					320
Asn	Pro	Ala	Ala	Ser	Ser	Thr	Gly	Gln	Ala	Gln	Thr	Gln	Ser	Pro	Ala
				325					330					335	
Ala	Asp	Pro	Gln	Thr	Ser	Arg	Thr	Arg	Ser	Asn	Pro	Gly	Asn	Pro	Leu
			340					345					350		
Pro	Pro	Pro	Ala	Pro	Pro	Pro	Pro	Val	Gln	Gln	Lys	Gln	Leu	Pro	Asp
		355					360					365			
Glu	Glu	Arg	Ala	Ala	Val	Leu	Ala	Gly	His	Ile	Val	Ser	Pro	Val	Ser
	370					375					380				
Thr	Lys	Ile	Gln	Gln	Thr	Arg	Gln	Arg	Leu	Ala	Gly	Leu	Glu	Gly	Glu
385					390					395					400
His	Leu	Pro	Val	Phe	Asp	Glu	Thr	Ala	Leu	Gln	Ala	Ile	Pro	Val	Gln
				405					410					415	
Val	Gly	Gly	Leu	His	Pro	Ile	Thr	Asp	Leu	Trp	Tyr	Ile	Glu	Arg	Ser
			420					425					430		
Ile	Asp	Thr	Pro	Glu	Ile	Leu	Arg	Gln	His	Ile	Ala	Asp	Leu	Ala	Glu
		435					440					445			
Glu	Ile	Ala	Leu	His	Val	Gly	Ala	Pro	Gly	Glu	Ile	Val	Arg	Ile	Gln
	450					455					460				
Gly	Gly	Val	Gly	Tyr	Thr	Tyr	Arg	Glu	Pro	Asn	Glu	Asp	His	Glu	Ile
465					470					475					480
Thr	Asp	Ser	Ala	Leu	His	Leu	Met	Thr	Leu	Leu	Gln	Ala	Val	Ser	Gly
				485					490					495	
Gln	Val	Gln	Val	Val	Leu	Asn	Thr	His	Asp	Gln	Gln	Thr	Cys	Arg	Asp
			500					505					510		
Ala	Leu	Gly	Glu	Phe	Gln	Phe	Ser	Ala	Gly	Leu	Ala	Gln	Leu	Leu	Leu
		515					520					525			
Gly	Gln	Pro	Thr	Thr	Ser	Asp	Lys	Pro	Ser	Cys	Gln	Ala	Gly	Arg	Leu
	530					535					540				
Asn	Asp	Glu	Ala	Leu	Val	Lys	Leu	Phe	Arg	Ile	Ile	Arg	Leu	Ala	Arg
545					550					555					560
Arg	Leu	Val	Asp	Leu	Glu	Leu	Pro	Pro	Ala	Ala	Ser	Glu	Gln	Ala	Ala

Thr Glu Thr Leu Val Asp Tyr Ala Thr Ser Gln Ala Arg Ile Gly Glu
 225 230 235 240
 Pro Met Thr Leu Asp Ala Leu Ser Glu Leu Met Asp Asp Gln Gln Pro
 245 250 255
 Arg Ala Phe Tyr Asp Tyr Ile Arg Asn Lys Asp Tyr Gly Leu Ser Pro
 260 265 270
 Glu Ile Pro Ala Asp Lys Arg Thr Leu Asn Gln Phe Arg Arg Phe Thr
 275 280 285
 Gly Arg Ala Glu Gly Leu Ser Ile Ser Phe Glu Ala His Leu Leu Gly
 290 295 300
 Ser Arg Ile Glu Tyr Asp Glu Glu Arg Asp Thr Leu Gln Ile Ser Ser
 305 310 315 320
 Leu Pro Thr Gln Leu Arg Asp Gln Leu Lys Arg Arg Lys Ala Gln Ile
 325 330 335
 Gly Glu

<210> 206
 <211> 77
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 206
 Met Arg Ser Phe Leu Arg Gly Ala Arg Glu Ser Val Arg Arg Leu Val
 1 5 10 15
 Ala Phe Ala Gln Ala Glu Gly Trp Ser Val Asp Arg Ser Ala Gly Gly
 20 25 30
 His Leu Lys Leu Ser Lys Ile Gly Cys Ala Ser Ile Phe Ile Ser Ser
 35 40 45
 Thr Pro Ser Asp Ala Arg Gly Glu Leu Asn Ala Arg Ala Leu Leu Arg
 50 55 60
 Arg Ala Asp Arg Gln Arg Ser Leu Asn Gln Glu Ser Phe
 65 70 75

<210> 207
 <211> 164
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 207
 Met Pro Asp Val Thr Ala Tyr Arg Pro Leu Glu His Phe Gln Lys Val
 1 5 10 15
 Glu Leu Met Leu Glu Leu Lys Leu Arg Glu Gly Pro Ser Trp Ile Cys
 20 25 30
 Leu Asn Cys Gly Tyr His Leu Asp Gly Ser Gly Ala Gln Pro Cys Pro
 35 40 45
 Asp Cys Gly Lys Ser Arg Tyr Trp Thr Ser Gly Trp Ser Val Gly Arg
 50 55 60
 Gly His Arg Phe Ser Ala Ala Arg Glu Glu Trp Glu Asn Arg Leu Arg
 65 70 75 80
 Thr Arg Ser Arg Ser Pro Val Ala Ser Thr Ala Pro Val Ala Thr Asp
 85 90 95
 Asp Val Cys Thr Gln Leu Arg Thr Glu Val Arg Met Leu Arg Ser Ala
 100 105 110
 His Asp Asp Leu Ala Cys Ser Arg Gln Ser Asp Arg Arg Ser Leu Gln
 115 120 125
 Ala Leu Val Lys Arg Leu Leu Asp Ala Ala Ala Thr Asp Ser Leu Pro

130		135		140
Arg Ser Leu Ala Glu Met Glu Thr Trp Leu Gln Leu Asn Ser Glu Glu				
145		150		155
Thr Thr Asn Ala				160

<210> 208
 <211> 85
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 208	
Met Lys Ala Ser Gln Thr Tyr Gln Cys Ile Val Lys Phe Asp Gly Ala	
1	5 10 15
Gly Phe Trp Thr Asn Thr Ile Gln Lys Gln Arg Ala Thr Cys Thr Trp	
	20 25 30
Ser Asp Lys Val Ala Ala Ser Arg Leu Ala Glu Arg Leu Phe Gly Glu	
	35 40 45
Asp Asn Ala Tyr Ile Thr Arg Met Pro Val Gln Ala Gly Asp His Glu	
	50 55 60
Lys Arg Ile Glu Ser Arg Trp Ala Leu Ser Cys Arg Asn Pro Lys Glu	
65	70 75 80
Val Ala Arg Asp Ala	
	85

<210> 209
 <211> 175
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 209	
Met Asn Thr Glu Ala Arg Phe Pro Ser Ile His Ala Ser Ala Ala Phe	
1	5 10 15
Thr Asp Ser Ala Val Val His Ala Asn His Val Gly Val Asn Pro Ile	
	20 25 30
Glu Leu Asp Ala Leu Ser Gln Val Ile Ser Arg Leu Ser Arg Asp Glu	
	35 40 45
Ser Thr Val Ala Pro Ser Ser Met Glu Arg Glu Leu Arg Glu Leu Glu	
	50 55 60
Glu Leu Gly Tyr Ile Glu Ile Ser Thr Thr Gln Ala Gly Thr Leu Val	
65	70 75 80
Val Thr Thr Arg Ala Pro Gly Gln Leu Leu Ser Ala Tyr Phe Trp Ser	
	85 90 95
Val Trp Ile Pro Arg His Leu Phe Ser Cys Ser Leu Lys Val Ser Leu	
	100 105 110
Val Pro His Leu Cys Cys Gly Thr Gln Asp Ser Gln His Leu Thr Ala	
	115 120 125
Val Phe Arg Ile Ala Gly Ser Lys Asp Ala Ala Arg Glu Phe Leu His	
	130 135 140
Gln Leu Ala Asn Asn Tyr Pro Gly His Glu Pro Glu Leu Pro Glu Leu	
145	150 155 160
Val Ala Val Gln Val Gly Asp Ala Leu Ser Lys Glu Ala Glu Ser	
	165 170 175

<210> 210
 <211> 235

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 210

Met	Thr	Arg	Ser	Ala	Leu	Ser	Thr	Ile	Ala	Tyr	Glu	Ala	Leu	Val	Arg
1				5					10					15	
Ala	Arg	Arg	Lys	Phe	Ser	Asn	Arg	Glu	Glu	Arg	Cys	Ile	Arg	Glu	Thr
			20					25					30		
Trp	Thr	Ala	Glu	Gln	Glu	Leu	Val	Leu	Leu	Arg	Leu	Tyr	Pro	Asp	Met
		35					40					45			
Pro	Asn	Glu	Val	Leu	Ala	Ala	Arg	Leu	Asn	Lys	Thr	Leu	Gln	Gln	Ile
	50					55					60				
Cys	Ser	Arg	Ala	Tyr	Arg	Leu	Gly	Leu	Lys	Lys	Ser	Pro	Glu	Phe	Ser
65					70					75					80
Lys	Lys	Ile	Arg	Gln	Asp	Trp	Gly	Ser	Ala	Thr	Arg	Phe	Lys	Lys	Gly
				85					90				95		
Asn	Thr	Pro	Trp	Asn	Cys	Gly	Met	Lys	Gly	Leu	Pro	Ala	Arg	Gly	Arg
			100					105					110		
Ala	Pro	Glu	Thr	Gln	Phe	Lys	Lys	Gly	Gln	Lys	Pro	His	Thr	Trp	Leu
		115					120					125			
Pro	Val	Gly	Ser	Thr	Arg	Val	Ser	Ala	Asp	Gly	Tyr	Leu	Gln	Arg	Lys
	130					135					140				
Ile	Ser	Asp	Thr	Gly	Tyr	Pro	Pro	Arg	Asp	Trp	Lys	Gly	Ile	His	Ile
145					150					155					160
Leu	Leu	Trp	Glu	Glu	His	Phe	Gly	Pro	Ile	Pro	Thr	Gly	His	Cys	Val
				165					170					175	
Cys	Phe	Lys	Asp	Asn	Asn	Lys	Gln	Asn	Val	Val	Ile	Asp	Asn	Leu	Glu
			180					185					190		
Leu	Ile	Thr	Arg	Ala	Glu	Arg	Met	Arg	Arg	Asn	Ser	Ile	His	Arg	Tyr
		195					200					205			
Pro	Pro	Glu	Leu	Lys	Ser	Ala	Ile	Arg	Val	Ile	Ser	Lys	Leu	Lys	Arg
	210					215					220				
Thr	Ile	Gln	Glu	Val	Glu	His	Glu	Glu	Gln	Asp					
225					230					235					

<210> 211

<211> 233

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 211

Met	Asp	Lys	Gln	Lys	Val	Leu	Ala	Lys	Val	Glu	Lys	Leu	Met	Ala	Leu
1				5					10					15	
Ala	Asn	Ala	Lys	Gly	Ala	Thr	Pro	Asn	Glu	Ala	Glu	Thr	Ala	Leu	Arg
			20					25					30		
Gln	Ala	Ala	Ile	Leu	Lys	Arg	Gln	Phe	Asp	Leu	Ser	Asp	Ala	Glu	Ile
		35					40					45			
Ser	Ala	His	Thr	Val	Glu	Thr	Ala	Cys	Val	Pro	Thr	Arg	Thr	Arg	Arg
	50					55					60				
Ser	Pro	Ala	Pro	Trp	Leu	His	Glu	Leu	Ala	Gly	Ile	Cys	Ala	Ser	Ser
65					70					75					80
Phe	Gly	Cys	Asp	Tyr	Leu	Ala	Ala	Tyr	Ala	Met	Pro	Ala	Gly	Trp	Thr
			85						90				95		
Phe	Lys	Phe	Met	Gly	Arg	Gly	Ile	Gly	Pro	Glu	Leu	Ala	Ala	His	Ala
			100					105					110		
Tyr	Ser	Thr	Leu	His	His	Gln	Leu	Val	Ala	Ala	Arg	Ser	Ala	His	Val
		115					120					125			
Ala	Gln	Gln	Lys	Arg	Cys	Lys	Leu	Ser	Thr	Lys	Arg	Arg	Arg	Ser	Lys

130		135		140
Leu Phe Val Glu Gly Trp	Leu Leu Ala Val Arg Ser Leu Val Arg Glu			
145		150		160
Phe Ala Gly Arg Pro Asp	Glu Ser Thr Gln Ala Ala Ile Lys Ala Tyr			
	165		170	175
Leu Glu Leu His His Pro Ala Leu Lys Tyr Leu Glu Pro Ala Ala Leu				
	180		185	190
Thr Lys Ala Leu Ala Tyr Asp Gln Ala Ser Leu Gln Ala Gly Trp Glu				
	195		200	205
His Gly Lys Asn Thr Arg Leu His Arg Gly Val Ser Arg Arg Val Gln				
	210		215	220
Gly Ala Leu Glu Gln Gly Gly Ser Gln				
225		230		

<210> 212
 <211> 228
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 212

Met Ser Asp Pro Lys Leu Lys Pro Cys Pro Leu Cys Gly Ser Thr Asn	
1	5
Ile Arg Met Leu Glu Pro Glu Leu Leu Asp Thr Asp Ala Trp Asn Cys	10
	20
Ala Ile Glu Cys Leu Asp Cys Gln Val His Ile Gly Pro Ser Tyr Cys	25
	30
	35
Glu Pro Asp Pro Val Thr Ala Arg Tyr Ser Ala Gln Ile Asp Trp Asn	40
	45
	50
Arg Arg Pro Ser Ala Lys Asn His Ala Asp Glu Arg Glu Gln Phe Leu	55
	60
65	70
Met Ala Asn Leu Leu Ala Ala Leu Glu Val Ala Leu Gly Asp Val Ala	75
	80
	85
Ala Leu Ala Ile Val Asp Arg Val Arg Gln Ala Thr Asp Arg Ile Tyr	90
	95
	100
Pro Thr Ser Asn Leu Ser Pro Val Pro Gln Ala Trp Leu Asp Val Gln	105
	110
	115
Ala Glu Arg Arg Arg Gln Ile Thr Val Glu Gly Phe Asp Thr Ser Asn	120
	125
	130
Asp Asp Ala Ser Ala Gly Leu Ile Ala Leu Ala Ala Gly Cys Tyr Ala	135
	140
145	150
Leu His Ala Gly Gly Ile Gly Thr Asp Trp Pro Gly Gly Ile Arg Asn	155
	160
	165
Gly Ser Ala Leu Phe Trp Pro Trp Asp Glu Glu Trp Trp Lys Pro Lys	170
	175
	180
Ser Ala Arg Glu Asn Leu Val Arg Ala Gly Ala Leu Val Leu Ala Glu	185
	190
	195
Ile Glu Arg Leu Asp Arg Ser Ala Thr Glu Gln Gly Ser Thr Ile Cys	200
	205
	210
Lys Gly Gly Ala	215
225	220

<210> 213
 <211> 165
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 213

Met	Asn	Leu	Gln	Asn	Arg	Asn	Asn	Leu	Leu	Leu	Ser	Leu	Ile	Ala	Glu
1				5					10					15	
Thr	Gln	Phe	Asp	Ala	Tyr	Val	Gln	Gly	Tyr	Met	Ala	Lys	Ala	Gly	Ala
			20					25					30		
Ala	Ala	Gly	Ala	Ser	Glu	Asn	Leu	Gln	Ile	Glu	Ala	Glu	Gly	Ala	Ala
		35					40					45			
Met	Leu	Gln	Gly	Leu	Val	Ala	Pro	Val	Arg	Ala	Gln	Gln	Arg	Ala	Cys
	50					55					60				
Gly	Gln	Ser	Leu	Gln	Asn	Ala	Leu	Leu	Gln	Ile	Ala	His	Asp	Leu	Leu
65					70					75					80
Leu	Gln	Thr	Lys	Ser	Gln	Leu	Ala	Ile	Ala	Ala	Asn	Ala	Ser	Ser	Ile
			85						90					95	
Gln	Val	Ile	Gln	Arg	Asp	Met	Asn	Arg	Ala	Ile	Trp	Asn	Ile	Ala	Thr
			100					105					110		
Ala	Ile	Asp	His	Leu	Ala	Glu	Phe	Ala	Gln	Pro	Ser	Gln	Asp	Thr	Val
		115					120					125			
Arg	Val	Ile	Glu	Arg	Leu	Met	Leu	Phe	Val	Gly	Ser	Ser	Ser	Ser	Thr
	130					135					140				
Glu	Gly	Gln	Gln	Leu	Ala	Ala	Glu	Ala	Asn	Ala	Val	Leu	Gly	Met	Ser
145					150					155					160
Val	Gly	Gly	Leu	Ala											
				165											

<210> 214

<211> 226

<212> PRT

<213> Pseudomonas aeruginosa

<400> 214

Leu	Asn	Lys	Phe	Gly	Ser	Ala	Ala	Asp	Leu	Arg	Ser	Gln	Gln	Ala	Lys
1				5					10					15	
Leu	Thr	Gly	Ala	Thr	Arg	Glu	Ile	Arg	Lys	Leu	Thr	Gly	Gly	Gly	Ile
			20					25					30		
Asp	Leu	Phe	Gly	Lys	Leu	Gly	Cys	Tyr	Leu	Ser	Phe	Glu	Gln	Lys	Gln
		35					40					45			
Leu	Leu	Gln	Asp	Ala	Ala	Arg	Leu	Leu	Asp	Ser	Val	Asn	Lys	Gln	Ile
	50					55					60				
Glu	His	Ala	Lys	Glu	Lys	Arg	Asp	Arg	Tyr	Glu	Lys	Lys	Ala	Lys	Lys
65					70				75						80
Arg	Arg	Glu	Leu	Arg	Glu	Arg	Leu	Ala	Lys	Gln	Leu	Val	Ala	Ser	Asn
			85						90					95	
Tyr	Pro	Leu	Pro	Gly	Asn	Thr	Leu	Glu	Asp	Arg	Leu	Glu	Ile	Leu	Gln
			100					105					110		
Ile	Ala	Leu	Ile	Tyr	Asn	Arg	Ala	Arg	Val	Phe	Asp	His	Leu	Tyr	Ser
		115					120					125			
Thr	His	Gln	Leu	His	Ser	Lys	Leu	Lys	Arg	Trp	Leu	Glu	Arg	Pro	Lys
	130					135					140				
Gln	Leu	Ile	Gly	Trp	Arg	Ser	Glu	Ala	Glu	Tyr	Phe	Ala	Ser	Gln	Val
145					150					155					160
Gly	Ser	Leu	Arg	Cys	Asp	Phe	Ile	Ser	His	Leu	Thr	Asn	Glu	Ile	Ala
				165					170					175	
Tyr	Asp	Asp	Gly	Ser	Glu	Val	Glu	Glu	Arg	Leu	Arg	Val	Ile	Lys	Gln
			180					185					190		
Lys	Val	Ala	Asp	Cys	Thr	Ala	Gln	Ile	Ala	Leu	Thr	Ser	Glu	Glu	Gln
		195					200					205			
Glu	Thr	Leu	Arg	Leu	Trp	Thr	Asp	Ala	Leu	Gln	Ser	Ala	Pro	Glu	Gly
	210					215						220			
Leu	Ile														

225

<210> 215
 <211> 309
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 215
 Met Asn Ala Lys Ala Thr Ser Val Val Ser Thr Lys Gly Gly Val Gly
 1 5 10 15
 Lys Ser Thr Thr Ala Ala Asn Leu Gly Ala Phe Cys Ala Asp Ala Gly
 20 25 30
 Ile Arg Thr Leu Leu Ile Asp Leu Asp Pro Val Gln Pro Ser Leu Ser
 35 40 45
 Ser Tyr Tyr Glu Leu Pro Glu Val Ala Gln Gly Gly Ile Tyr Asp Leu
 50 55 60
 Leu Ala Ala Asn Ile Thr Asp Pro Ala Arg Ile Ile Ser Arg Thr Ile
 65 70 75 80
 Ile Pro Asn Leu Asp Val Val Ile Ser Asn Asp Gln Asn Asn Gln Leu
 85 90 95
 Asn Asn Leu Leu Leu Gln Ala Pro Asp Gly Arg Leu Arg Leu Ala Asn
 100 105 110
 Leu Met Pro Ala Leu Lys Glu Gly Tyr Asp Leu Val Leu Ile Asp Thr
 115 120 125
 Gln Gly Ala Arg Ser Ala Leu Leu Glu Met Val Val Leu Ala Ser Asp
 130 135 140
 Leu Val Val Ser Pro Leu Gln Pro Asn Met Leu Thr Ala Arg Glu Phe
 145 150 155 160
 Asn Arg Gly Thr Met Gln Met Leu Asp Gly Leu Arg Pro Tyr Glu Arg
 165 170 175
 Leu Gly Met Arg Ile Pro Asn Val Gln Ile Val Ile Asn Cys Leu Asp
 180 185 190
 Gln Thr Asn Asp Ser Arg Ala Ile His Glu Asn Val Arg Ala Ile Phe
 195 200 205
 Asp Glu His Gln Asp Ile Ser Val Leu Glu Thr Thr Val Pro Asp Ala
 210 215 220
 Val Val Phe Arg Asn Ala Ala Ser Arg Gly Leu Pro Ala His Arg Leu
 225 230 235 240
 Glu Thr Arg Gln Pro Ser Asn Arg Thr Ser Ala Pro Ala Leu Glu Ile
 245 250 255
 Ile Arg Asn Leu Ala Ile Glu Val Phe Pro Glu Trp Thr Asp Arg Phe
 260 265 270
 Leu Ala Leu Thr Pro Gly Gly Gly Cys Ser Thr Gly Gln Gly Arg Ala
 275 280 285
 Leu Thr Trp Arg Arg Leu Leu Ser Pro Lys Pro Ala Thr Ser Thr Arg
 290 295 300
 Asn Leu Cys Trp Asn
 305

<210> 216
 <211> 426
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 216
 Met Thr Pro Gln Gln Leu Thr Glu Glu Tyr Ile Phe Ala His Asp Leu
 1 5 10 15

<400> 217

Met	Lys	Ser	Gly	Ile	Ala	Thr	Arg	Arg	Leu	Phe	Ile	Asn	Asp	Thr	Lys
1				5					10					15	
Ala	Leu	Val	His	Thr	Val	Asp	Gly	Thr	Ala	Met	Leu	Val	Thr	Pro	Gly
			20					25					30		
Ile	Phe	Lys	Arg	Tyr	Val	Gln	Glu	His	Pro	Glu	Val	Glu	Lys	Leu	Ala
		35					40					45			
Gln	Ala	Lys	Glu	Thr	Ala	Gly	Trp	Lys	Leu	Val	Gln	Arg	Ala	Phe	Glu
	50					55					60				
Lys	Gln	Gly	Leu	His	Arg	Lys	Thr	Ser	Lys	Asn	Leu	Asn	Ile	Trp	Thr
65					70					75					80
Ile	Lys	Val	Ser	Gly	Pro	Arg	Lys	Thr	Lys	Glu	Leu	Lys	Ala	Tyr	Leu
				85					90					95	
Leu	Gln	Asp	Pro	Lys	Leu	Leu	Phe	Pro	Val	Gln	Pro	Leu	Asp	Asn	Pro
			100					105					110		
Ser	Leu	Thr	Val	Ile	Thr	Asp	Ala	Glu	Gly	Gly	Val	Glu			
			115				120						125		

<210> 218

<211> 280

<212> PRT

<213> *Pseudomonas aeruginosa*

<400> 218

Ile	Asp	Gln	Leu	Ser	Glu	Gln	Glu	Ser	Val	Glu	Val	Val	Cys	Ser	Ala
1				5					10					15	
Phe	Asp	Val	Ala	Arg	Ser	Cys	Tyr	Tyr	Val	His	Arg	Leu	Arg	Arg	Arg
			20					25					30		
Arg	Val	Asp	Ala	Arg	Arg	Val	Ala	Leu	Arg	Ser	Gln	Val	Asn	Gln	Leu
		35					40					45			
Phe	Ser	Gln	Ser	Arg	Gly	Ser	Ala	Gly	Ser	Arg	Ser	Ile	Leu	Gly	Met
	50					55					60				
Leu	Arg	Glu	Glu	Gly	Val	Thr	Ile	Gly	Arg	Phe	Arg	Val	Arg	Arg	Leu
65					70					75					80
Met	Arg	Glu	Leu	Gly	Leu	Val	Ser	Lys	Gln	Pro	Gly	Ser	His	Ala	Tyr
				85					90					95	
Lys	Gln	Ala	Thr	Val	Glu	Arg	Pro	Asp	Ile	Pro	Asn	Arg	Leu	Asn	Arg
			100					105					110		
Glu	Phe	Ala	Thr	Glu	His	Pro	Ile	Gln	Val	Trp	Cys	Gly	Asp	Ile	Thr
		115					120					125			
Tyr	Val	Trp	Ala	Gln	Gly	Arg	Trp	His	Tyr	Leu	Ala	Ala	Val	Leu	Asp
	130					135						140			
Leu	Leu	Ile	Gly	Trp	Ala	Phe	Ser	Ala	Lys	Pro	Asp	Ala	Glu	Leu	Val
145					150					155					160
Ile	Lys	Ala	Leu	Asp	Met	Ala	Tyr	Glu	Gln	Arg	Gly	Arg	Pro	Gln	Gln
				165					170					175	
Val	Leu	Phe	His	Ser	Asp	Gln	Gly	Ser	Gln	Tyr	Ala	Ser	Arg	Leu	Phe
			180					185					190		
Arg	Gln	Arg	Leu	Trp	Arg	Tyr	Arg	Met	Gln	Gln	Ser	Met	Ser	Arg	Arg
		195					200						205		
Gly	Asn	Cys	Trp	Asp	Asn	Ser	Pro	Met	Glu	Arg	Leu	Phe	Arg	Ser	Leu
	210					215					220				
Lys	Ser	Glu	Trp	Val	Pro	Ser	Thr	Gly	Tyr	Leu	Thr	Ala	Gln	Glu	Ala
225					230					235					240
Gln	Arg	Asp	Ile	Ser	His	Tyr	Leu	Met	His	Arg	Tyr	Asn	Trp	Ile	Arg
				245					250					255	
Pro	His	Gln	Phe	Asn	Asp	Gly	Leu	Pro	Pro	Ala	Val	Ala	Glu	Glu	Lys
			260					265						270	

Leu Asn Pro Leu Ser Gly Met Gly
 275 280

<210> 219
 <211> 102
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 219
 Met Ser Lys Gln Arg Arg Thr Phe Ser Ala Glu Phe Lys Arg Glu Ala
 1 5 10 15
 Ala Ala Leu Val Leu Asp Gln Gly Tyr Ser His Ile Asp Ala Cys Arg
 20 25 30
 Ser Leu Gly Val Val Asp Ser Ala Leu Arg Arg Trp Val Lys Gln Leu
 35 40 45
 Glu Ala Glu Arg Gln Gly Val Thr Pro Lys Ser Lys Ala Leu Thr Pro
 50 55 60
 Glu Gln Gln Lys Ile Gln Glu Leu Glu Ala Arg Ile Asn Arg Leu Glu
 65 70 75 80
 Arg Glu Lys Ala Ile Leu Lys Lys Ala Thr Ala Leu Leu Met Ser Asp
 85 90 95
 Glu Leu Asp Arg Thr Arg
 100

<210> 220
 <211> 94
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 220
 Met Leu Tyr Phe Ser Cys Ser Met Lys Met Gly Gly Trp Val Gly Tyr
 1 5 10 15
 Arg Tyr Phe Ser Leu Phe Ser Leu Ile Ala Leu Ile Tyr Gly Cys Val
 20 25 30
 Gly Gly Gly Gly Gly Ser Asp Glu Ile Gly Gln His Cys Phe Glu Arg
 35 40 45
 Glu Gln Lys Leu Ser Gly Val Asn Asp Asn Glu Glu Gly Ser Val Arg
 50 55 60
 Leu Asn Arg Leu Asn Cys Asp Pro Ile Glu Gly Arg Val Leu Glu Ser
 65 70 75 80
 Glu Lys Leu Ile Arg Lys Pro Pro Asn Glu Leu Gly Ile His
 85 90

<210> 221
 <211> 207
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 221
 Met Lys Lys Ser Leu Val Met Ser Ala Val Leu Leu Val Ala Ser Asn
 1 5 10 15
 Phe Ala Cys Ala Asp Glu Gly Ser Asn Asp Gly Ser Glu Ile Cys Arg
 20 25 30
 Ala Gln Gly Gly Val Glu Ile Thr Ser Leu Gly Glu Val Ser Lys Gly
 35 40 45
 Val Asp Val Glu Asp Val Val Val Cys Ser Ile Leu Pro Ser Asn Met

50		55		60
Lys Ser Ser Gln Arg	Ala Pro Thr Leu Pro	Pro Leu Gln Arg Met Ile		
65	70	75	80	
Ile Ser Ala Met Pro	Ser Pro Gly Thr Val Thr	Val Ser Ala Ser Gly		
	85	90	95	
Asp Arg Lys Phe Thr	Thr Ser Cys Arg Ala	Asn Leu Tyr Ala Pro Arg		
	100	105	110	
Tyr Ala Asn Phe Tyr	Pro Asp Gly Val Ser	Arg Gly Thr Ser Asp Leu		
	115	120	125	
Arg Cys Val Gly Tyr	Asn Thr Pro Gly Asn	Ser Ser Gln Gly Cys Asn		
	130	135	140	
Val Ser Trp Asp Gly	Pro Thr Asp Ile Gln	Leu Gly Val Glu Pro Tyr		
145	150	155	160	
Gly Gly Ser Val Val	Val Asn Tyr Ser Cys	Thr Ala Phe Lys Thr Thr		
	165	170	175	
Ile Pro Val Ile Met	Ser Tyr Ser Tyr Arg	Asp Gly Arg Ala Val Tyr		
	180	185	190	
Gly Glu Val Gln Asn	Val Ser Gly Ile Ile	Asn Val Val Leu Asn		
	195	200	205	

<210> 222
 <211> 105
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 222
Met Leu Ile Lys Ile Leu Arg Ile Ile Phe Leu Leu Pro Ile Val Gly
1 5 10 15
Leu Ala Gln Gln Ala Ala Ala Ser Pro Pro Ala Glu Ser His Ser Glu
20 25 30
Gln Ser Glu Ser Ser Cys Ile Asp Val Gln Val Asn Gly Ala Arg Ser
35 40 45
Leu Ser Tyr Asn Cys Met Ala Gln Gln Met Thr Pro Pro Lys Glu Asp
50 55 60
Pro Arg Arg Arg Asn Pro Thr Leu Asn Ser Thr Leu Ala Ser Glu Arg
65 70 75 80
Ala Thr Arg Leu Pro Pro Thr Gln Thr Gly Leu Phe Thr Ser Leu His
85 90 95
Gln Arg Ala Ile Ser Asn Ser Lys Asp
100 105

<210> 223
 <211> 67
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 223
Val Ser Ser Thr Lys Ser Lys Pro Ile Ala Arg Gly Arg Gly Gly Pro
1 5 10 15
Phe Gly Glu Val Met Lys Arg Cys Gly Leu Val Pro Val Arg Gly Arg
20 25 30
Asn Arg Gln Gln Thr Gly Ser Leu Ala Met Gly Gln Gln Glu Thr Ile
35 40 45
Ser Pro Ser Val Ser Arg Thr Ala Ala Cys Ser Val Arg Gly Asp Ser
50 55 60
Leu Met Pro
65

<210> 224
 <211> 72
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 224
 Met Glu Arg Leu Leu Glu Ser Ile Tyr Ile Asn Ala Arg Pro Ala Met
 1 5 10 15
 Glu Leu Arg Leu Ser Leu Thr Ser Ser Gly Arg Lys Arg Met Val Lys
 20 25 30
 Ile Val Asp Gly Glu Glu Val Glu Val Leu Pro Gly Glu Val Gln Gly
 35 40 45
 Ile Leu Glu Ala Gln Lys Arg Asp Val Gly Ile Leu Ala Asp Phe Leu
 50 55 60
 Ala Lys Ser Leu Val Ala Arg Arg
 65 70

<210> 225
 <211> 149
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 225
 Met Glu Cys His Val Arg Pro Ala Thr Ser Arg Asp Ala Ala Ala Ile
 1 5 10 15
 Ser Cys Val Val Ile Ala Ala Leu Arg Glu Ser Asn Ser Gln Asp Tyr
 20 25 30
 Pro Pro Asp Val Ile Ala Gln Val Glu Gln Ser Phe Ser Pro Glu Ala
 35 40 45
 Ile Thr Thr Gln Leu Thr Lys Arg Arg Val Phe Val Ala Leu Leu Gly
 50 55 60
 Glu Asn Ile Ile Gly Thr Ala Gly Leu Asp Gly Asp Val Val Arg Ser
 65 70 75 80
 Val Phe Val Asp Pro Ala His Gln Lys Gly Gly Ile Gly Arg His Leu
 85 90 95
 Met Asp Val Ile His Thr Thr Ala Ala Ser Ala Gly Val Gly Ala Val
 100 105 110
 Arg Val Pro Ser Ser Ile Thr Ala Glu Arg Phe Tyr Thr Ala Leu Gly
 115 120 125
 Tyr Gln Lys Ile Arg Asp Glu Phe His Gly Ala Glu Arg Thr Ile Val
 130 135 140
 Met Glu Lys Arg Leu
 145

<210> 226
 <211> 366
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 226
 Leu Trp Leu Thr Cys Thr Pro Gln Gln Asp Val Gln Ala Ala Leu Ala
 1 5 10 15
 Thr Ala Ser Ile Leu Leu Gly Gln Phe His Gln Leu Gly Val Gln Leu
 20 25 30
 Gly Arg Tyr Thr Ser Leu Asp Pro Leu Glu Glu Val Glu Lys Asn Ala
 35 40 45

Ser Ala Leu Pro Ser Pro Ala Trp Lys Thr Asp Ser Thr Lys Phe Ser
 50 55 60
 Val Val Leu Lys Ser Gly Gly Arg Ser Ile Asp Lys Gly Ile Pro Thr
 65 70 75 80
 Ala Gly Leu Leu Ala His Val Met Val Ala Lys Phe Ala Asp His Leu
 85 90 95
 Pro Leu Tyr Arg Gln Glu Lys Ile Phe Gly Arg Ala Gly Leu Ala Ile
 100 105 110
 Ala Arg Ser Thr Leu Ala Gln Trp Val Gly Gln Thr Gly Val Arg Leu
 115 120 125
 Gln Pro Leu Val Asp Ala Leu Arg Glu Ala Val Leu Asn Gln Gly Val
 130 135 140
 Ile His Ala Asp Glu Thr Pro Val Gln Met Leu Ala Pro Gly Glu Lys
 145 150 155 160
 Lys Thr His Arg Ala Tyr Val Trp Ala Tyr Ser Thr Thr Pro Phe Ser
 165 170 175
 Gly Leu Lys Ala Val Val Tyr Asp Phe Ser Pro Ser Arg Ala Gly Glu
 180 185 190
 His Ala Arg Asn Phe Leu Gly Asp Trp Asn Gly Lys Leu Val Cys Asp
 195 200 205
 Asp Phe Ala Gly Tyr Lys Ala Gly Phe Glu Gln Gly Ile Thr Glu Ile
 210 215 220
 Gly Cys Met Ala His Ala Arg Arg Lys Phe Phe Asp Leu His Val Ala
 225 230 235 240
 Asn Lys Ser Gln Leu Ala Glu Gln Ala Leu His Ser Ile Ser Gly Leu
 245 250 255
 Tyr Glu Val Glu Arg Gln Ala Arg Asp Met Ser Asp Glu Glu Arg Trp
 260 265 270
 Arg Ile Arg Gln Glu Leu Ala Val Pro Ile Leu Lys Lys Leu His Asp
 275 280 285
 Trp Met Leu Ala Gln Arg Asp Leu Val Pro Asn Gly Ser Ala Thr Ala
 290 295 300
 Lys Ala Leu Asp Tyr Ser Leu Lys Arg Trp Val Ala Leu Thr Arg Tyr
 305 310 315 320
 Leu Asp Asp Gly Ala Val Pro Ile Asp Asn Asn Gln Val Glu Asn Gln
 325 330 335
 Ile Arg Pro Trp Ala Leu Gly Arg Ser Asn Trp Leu Phe Ala Gly Ser
 340 345 350
 Leu Arg Ser Gly Lys Arg Ala Ala Ile Met Ser Leu Ile
 355 360 365

<210> 227
 <211> 189
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 227
 Met Val Arg Arg Arg Arg Val Ala Val Ala Arg Glu Cys Leu Ser Leu
 1 5 10 15
 Ser Ser Ala Pro Asn Gln Val Leu Ser Met Asp Phe Val Phe Asp Ala
 20 25 30
 Leu Ser Thr Gly Arg Arg Ile Lys Cys Leu Thr Val Val Asp Asp Phe
 35 40 45
 Thr Lys Val Ser Val Asp Ile Leu Val Glu Tyr Gly Ile Ser Gly Phe
 50 55 60
 Arg Val Thr Arg Ala Leu Asp Glu Met Ala Arg Phe Arg Gly Tyr Pro
 65 70 75 80
 Gln Ala Ile Arg Thr Asp Gln Gly Pro Glu Phe Thr Gly Lys Ala Leu

				85					90					95			
Asp	Gln	Trp	Ala	Cys	Gln	Arg	Asp	Ile	Lys	Leu	Lys	Leu	Ile	Gln	Pro		
			100					105					110				
Gly	Gln	Pro	Thr	Gln	Ser	Ala	Phe	Ile	Glu	Ser	Phe	Asn	Gly	Lys	Phe		
		115					120					125					
Arg	Gly	Glu	Cys	Leu	Asn	Glu	His	Cys	Ser	Leu	Val	Glu	Ala	Arg	Ile		
	130					135					140						
Arg	Ile	Ala	Ala	Trp	Arg	Asp	Tyr	Asn	Glu	His	Arg	Pro	His	Ser	Ala		
145					150					155					160		
Ile	Gly	Asn	Leu	Ser	Pro	Ala	Glu	Leu	Ala	Ala	Lys	Trp	Arg	Thr	Asn		
			165					170						175			
Gln	Gln	Gln	Leu	Lys	Arg	Glu	Lys	Leu	Ile	Ser	Thr	Pro					
			180					185									

<210> 228

<211> 687

<212> PRT

<213> Pseudomonas aeruginosa

<400> 228

Met	His	Ile	Gln	Ser	Leu	Gly	Ala	Thr	Ala	Ser	Ser	Leu	Asn	Gln	Glu		
1				5					10					15			
Pro	Val	Glu	Thr	Pro	Ser	Gln	Ala	Ala	His	Lys	Ser	Ala	Ser	Leu	Arg		
			20					25					30				
Gln	Glu	Pro	Ser	Gly	Gln	Gly	Leu	Gly	Val	Ala	Leu	Lys	Ser	Thr	Pro		
		35				40						45					
Gly	Ile	Leu	Ser	Gly	Lys	Leu	Pro	Glu	Ser	Val	Ser	Asp	Val	Arg	Phe		
	50					55					60						
Ser	Ser	Pro	Gln	Gly	Gln	Gly	Glu	Ser	Arg	Thr	Leu	Thr	Asp	Ser	Ala		
65				70					75					80			
Gly	Pro	Arg	Gln	Ile	Thr	Leu	Arg	Gln	Phe	Glu	Asn	Gly	Val	Thr	Glu		
			85					90					95				
Leu	Gln	Leu	Ser	Arg	Pro	Pro	Leu	Thr	Ser	Leu	Val	Leu	Ser	Gly	Gly		
		100					105						110				
Gly	Ala	Lys	Gly	Ala	Ala	Tyr	Pro	Gly	Ala	Met	Leu	Ala	Leu	Glu	Glu		
		115				120						125					
Lys	Gly	Met	Leu	Asp	Gly	Ile	Arg	Ser	Met	Ser	Gly	Ser	Ser	Ala	Gly		
	130				135						140						
Gly	Ile	Thr	Ala	Ala	Leu	Leu	Ala	Ser	Gly	Met	Ser	Pro	Ala	Ala	Phe		
145				150					155						160		
Lys	Thr	Leu	Ser	Asp	Lys	Met	Asp	Leu	Ile	Ser	Leu	Leu	Asp	Ser	Ser		
			165					170						175			
Asn	Lys	Lys	Leu	Lys	Leu	Phe	Gln	His	Ile	Ser	Ser	Glu	Ile	Gly	Ala		
			180				185						190				
Ser	Leu	Lys	Lys	Gly	Leu	Gly	Asn	Lys	Ile	Gly	Gly	Phe	Ser	Glu	Leu		
		195				200						205					
Leu	Leu	Asn	Val	Leu	Pro	Arg	Ile	Asp	Ser	Arg	Ala	Glu	Pro	Leu	Glu		
	210				215						220						
Arg	Leu	Leu	Arg	Asp	Glu	Thr	Arg	Lys	Ala	Val	Leu	Gly	Gln	Ile	Ala		
225				230						235					240		
Thr	His	Pro	Glu	Val	Ala	Arg	Gln	Pro	Thr	Val	Ala	Ala	Ile	Ala	Ser		
			245					250						255			
Arg	Leu	Gln	Ser	Gly	Ser	Gly	Val	Thr	Phe	Gly	Asp	Leu	Asp	Arg	Leu		
		260					265						270				
Ser	Ala	Tyr	Ile	Pro	Gln	Ile	Lys	Thr	Leu	Asn	Ile	Thr	Gly	Thr	Ala		
	275					280					285						
Met	Phe	Glu	Gly	Arg	Pro	Gln	Leu	Val	Val	Phe	Asn	Ala	Ser	His	Thr		
	290					295					300						

Pro	Asp	Leu	Glu	Val	Ala	Gln	Ala	Ala	His	Ile	Ser	Gly	Ser	Phe	Pro
305					310					315					320
Gly	Val	Phe	Gln	Lys	Val	Ser	Leu	Ser	Asp	Gln	Pro	Tyr	Gln	Ala	Gly
			325						330					335	
Val	Glu	Trp	Thr	Glu	Phe	Gln	Asp	Gly	Gly	Val	Met	Ile	Asn	Val	Pro
			340					345					350		
Val	Pro	Glu	Met	Ile	Asp	Lys	Asn	Phe	Asp	Ser	Gly	Pro	Leu	Arg	Arg
		355					360					365			
Asn	Asp	Asn	Leu	Ile	Leu	Glu	Phe	Glu	Gly	Glu	Ala	Gly	Glu	Val	Ala
	370					375					380				
Pro	Asp	Arg	Gly	Thr	Arg	Gly	Gly	Ala	Leu	Lys	Gly	Trp	Val	Val	Gly
385					390					395					400
Val	Pro	Ala	Leu	Gln	Ala	Arg	Glu	Met	Leu	Gln	Leu	Glu	Gly	Leu	Glu
			405						410					415	
Glu	Leu	Arg	Glu	Gln	Thr	Val	Val	Val	Pro	Leu	Lys	Ser	Glu	Arg	Gly
			420					425					430		
Asp	Phe	Ser	Gly	Met	Leu	Gly	Gly	Thr	Leu	Asn	Phe	Thr	Met	Pro	Asp
		435				440						445			
Glu	Ile	Lys	Ala	His	Leu	Gln	Glu	Arg	Leu	Gln	Glu	Arg	Val	Gly	Glu
	450					455					460				
His	Leu	Glu	Lys	Arg	Leu	Gln	Ala	Ser	Glu	Arg	His	Thr	Phe	Ala	Ser
465					470					475					480
Leu	Asp	Glu	Ala	Leu	Leu	Ala	Leu	Asp	Asp	Ser	Met	Leu	Thr	Ser	Val
			485						490					495	
Ala	Gln	Gln	Asn	Pro	Glu	Ile	Thr	Asp	Gly	Ala	Val	Ala	Phe	Arg	Gln
			500					505					510		
Lys	Ala	Arg	Asp	Ala	Phe	Thr	Glu	Leu	Thr	Val	Ala	Ile	Val	Ser	Ala
		515					520					525			
Asn	Gly	Leu	Ala	Gly	Arg	Leu	Lys	Leu	Asp	Glu	Ala	Met	Arg	Ser	Ala
	530					535					540				
Leu	Gln	Arg	Leu	Asp	Ala	Leu	Ala	Asp	Thr	Pro	Glu	Arg	Leu	Ala	Trp
545				550						555					560
Leu	Ala	Ala	Glu	Leu	Asn	His	Ala	Asp	Asn	Val	Asp	His	Gln	Gln	Leu
			565						570					575	
Leu	Asp	Ala	Met	Arg	Gly	Gln	Thr	Val	Gln	Ser	Pro	Val	Leu	Ala	Ala
		580					585						590		
Ala	Leu	Ala	Glu	Ala	Gln	Arg	Arg	Lys	Val	Ala	Val	Ile	Ala	Glu	Asn
		595					600					605			
Ile	Arg	Lys	Glu	Val	Ile	Phe	Pro	Ser	Leu	Tyr	Arg	Pro	Gly	Gln	Pro
	610					615					620				
Asp	Ser	Asn	Val	Ala	Leu	Leu	Arg	Arg	Ala	Glu	Glu	Gln	Leu	Arg	His
625					630					635					640
Ala	Thr	Ser	Pro	Ala	Glu	Ile	Asn	Gln	Ala	Leu	Asn	Asp	Ile	Val	Asp
			645						650					655	
Asn	Tyr	Ser	Ala	Arg	Gly	Phe	Leu	Arg	Phe	Gly	Lys	Pro	Leu	Ser	Ser
			660					665					670		
Thr	Thr	Val	Glu	Met	Ala	Lys	Ala	Trp	Arg	Asn	Lys	Glu	Phe	Thr	
		675					680						685		

<210> 229
 <211> 137
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 229
 Met Ile Asp Thr Trp Leu Ala Gln Trp Gly Leu Arg Leu Pro Ser Ser
 1 5 10 15
 Asn Asp Ala Thr Leu Arg Leu Gln Pro Ala Glu Gly Pro Glu Leu Val

			20					25					30				
Met	Glu	Arg	Leu	Glu	Gly	Gly	Trp	Leu	Phe	Val	Val	Glu	Leu	Gly	Leu		
		35					40					45					
Val	Pro	Ser	Gly	Leu	Pro	Leu	Gly	Val	Ile	Leu	Gln	Leu	Leu	Gln	Val		
		50				55					60						
Asn	Ser	Pro	Phe	Ser	Ser	Leu	Ala	Pro	Val	Lys	Leu	Ala	Ala	Asp	Asp		
65					70					75					80		
Ala	Gly	Arg	Leu	Val	Leu	Trp	Ala	Glu	Ala	Arg	Asp	Gly	Val	Asp	Asp		
			85					90						95			
Val	Asp	Ala	Leu	Asn	Arg	Leu	His	Asp	Arg	Leu	Arg	Glu	Gly	His	Ser		
		100						105					110				
Arg	Leu	Val	Pro	Leu	Leu	Glu	Pro	Thr	Gly	Glu	Leu	Val	Pro	Ala	Gln		
		115				120						125					
Ile	Gln	Thr	Ser	Ala	Leu	Val	Phe	Val									
	130					135											

<210> 230
 <211> 76
 <212> PRT
 <213> Pseudomonas aeruginosa

<220>

<400> 230																	
Asp	Gln	Thr	Cys	Asp	Asn	Leu	Ser	Gln	Asn	Pro	Pro	His	His	Leu	Leu		
1				5					10					15			
Leu	Arg	Leu	Leu	Asp	His	Trp	Gly	Asp	Pro	Ala	Gly	Cys	Trp	Ser	Leu		
		20					25					30					
Gly	Gln	Thr	Tyr	Ser	Gly	His	Leu	Tyr	Leu	Pro	Tyr	Cys	Arg	Glu	Leu		
		35				40					45						
His	Lys	Cys	Ser	Leu	Cys	Ala	His	Arg	Asn	Trp	His	His	Tyr	Cys	Cys		
	50				55					60							
Leu	Trp	Pro	Val	Trp	Met	Leu	Cys	Tyr	Met	Ser	Trp						
65					70				75								

<210> 231
 <211> 76
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 231																	
Asp	Gln	Thr	Cys	Asp	Asn	Leu	Ser	Gln	Asn	Pro	Pro	His	His	Leu	Leu		
1				5					10					15			
Leu	Arg	Leu	Leu	Asp	His	Trp	Gly	Asp	Pro	Ala	Gly	Cys	Trp	Ser	Leu		
		20					25					30					
Gly	Gln	Thr	Tyr	Ser	Gly	His	Leu	Tyr	Leu	Pro	Tyr	Cys	Arg	Glu	Leu		
		35				40					45						
His	Lys	Cys	Ser	Leu	Cys	Ala	His	Arg	Asn	Trp	His	His	Tyr	Cys	Cys		
	50				55					60							
Leu	Trp	Pro	Val	Trp	Met	Leu	Cys	Tyr	Met	Ser	Trp						
65					70				75								

<210> 232
 <211> 76
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 232
 Asp Gln Thr Cys Asp Asn Leu Ser Gln Asn Pro Pro His His Leu Leu
 1 5 10 15
 Leu Arg Leu Leu Asp His Trp Gly Asp Pro Ala Gly Cys Trp Ser Leu
 20 25 30
 Gly Gln Thr Tyr Ser Gly His Leu Tyr Leu Pro Tyr Cys Arg Glu Leu
 35 40 45
 His Lys Cys Ser Leu Cys Ala His Arg Asn Trp His His Tyr Cys Cys
 50 55 60
 Leu Trp Pro Val Trp Met Leu Cys Tyr Met Ser Trp
 65 70 75

<210> 233
 <211> 58
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 233
 Gln Val Gln His Pro Pro Leu Cys Leu Leu Asp Gln His Gln Gln Glu
 1 5 10 15
 Cys Ile Pro Pro Cys Leu Pro Pro Asp His Leu Gln Asp Pro Gln His
 20 25 30
 Pro Phe Leu Leu Pro Asp His His Val Pro His Leu Val Val Leu Ile
 35 40 45
 Gln Pro Gln Leu Cys Arg Ala Leu Ala Pro
 50 55

<210> 234
 <211> 56
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 234
 Gln Val Gln His Pro Cys Leu Leu Asp Gln His Gln Gln Glu Cys Ile
 1 5 10 15
 Pro Pro Cys Leu Pro Pro Asp His Leu Gln Asp Pro Gln His Pro Phe
 20 25 30
 Leu Leu Pro Asp His His Val Pro His Leu Val Val Leu Ile Gln Pro
 35 40 45
 Gln Leu Cys Arg Ala Leu Ala Pro
 50 55

<210> 235
 <211> 58
 <212> PRT
 <213> Pseudomonas aeruginosa

<220>
 <221> VARIANT
 <222> 6,7
 <223> Xaa = Any amino acid

<400> 235
 Gln Val Gln His Pro Xaa Xaa Cys Leu Leu Asp Gln His Gln Gln Glu
 1 5 10 15
 Cys Ile Pro Pro Cys Leu Pro Pro Asp His Leu Gln Asp Pro Gln His

			20					25				30					
Pro	Phe	Leu	Leu	Pro	Asp	His	His	Val	Pro	His	Leu	Val	Val	Leu	Ile		
		35					40					45					
Gln	Pro	Gln	Leu	Cys	Arg	Ala	Leu	Ala	Pro								
		50				55											

<210> 236
 <211> 161
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 236

Cys	Gly	Gly	Ala	Ser	Cys	His	Asn	Thr	Leu	Gly	Ser	Tyr	Lys	Cys	Met		
1				5					10					15			
Cys	Pro	Ala	Gly	Phe	Gln	Tyr	Glu	Gln	Phe	Ser	Gly	Gly	Cys	Gln	Asp		
		20					25						30				
Ile	Asn	Glu	Cys	Gly	Ser	Ala	Gln	Ala	Pro	Cys	Ser	Tyr	Gly	Cys	Ser		
	35						40					45					
Asn	Thr	Glu	Gly	Gly	Tyr	Leu	Cys	Gly	Cys	Pro	Pro	Gly	Tyr	Phe	Arg		
	50					55					60						
Ile	Gly	Gln	Gly	His	Cys	Val	Ser	Gly	Met	Gly	Met	Gly	Arg	Gly	Asn		
65				70					75						80		
Pro	Glu	Pro	Pro	Val	Ser	Gly	Glu	Met	Asp	Asp	Asn	Ser	Leu	Ser	Pro		
			85						90					95			
Glu	Ala	Cys	Tyr	Glu	Cys	Lys	Ile	Asn	Gly	Tyr	Pro	Lys	Arg	Gly	Arg		
		100					105						110				
Lys	Arg	Arg	Ser	Thr	Asn	Glu	Thr	Asp	Ala	Ser	Asn	Ile	Glu	Asp	Gln		
	115					120						125					
Ser	Glu	Thr	Glu	Ala	Asn	Val	Ser	Leu	Ala	Ser	Trp	Asp	Val	Glu	Lys		
	130				135						140						
Thr	Ala	Ile	Phe	Ala	Phe	Asn	Ile	Ser	His	Val	Asn	Lys	Val	Arg	Ile		
145					150					155					160		
Leu																	

<210> 237
 <211> 161
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 237

Cys	Gly	Gly	Ala	Ser	Cys	His	Asn	Thr	Leu	Gly	Ser	Tyr	Lys	Cys	Met		
1				5					10					15			
Cys	Pro	Ala	Gly	Phe	Gln	Tyr	Glu	Gln	Phe	Ser	Gly	Gly	Cys	Gln	Asp		
		20					25						30				
Ile	Asn	Glu	Cys	Gly	Ser	Ala	Gln	Ala	Pro	Cys	Ser	Tyr	Gly	Cys	Ser		
	35						40					45					
Asn	Thr	Glu	Gly	Gly	Tyr	Leu	Cys	Gly	Cys	Pro	Pro	Gly	Tyr	Phe	Arg		
	50					55					60						
Ile	Gly	Gln	Gly	His	Cys	Val	Ser	Gly	Met	Gly	Met	Gly	Arg	Gly	Asn		
65				70					75						80		
Pro	Glu	Pro	Pro	Val	Ser	Gly	Glu	Met	Asp	Asp	Asn	Ser	Leu	Ser	Pro		
			85						90					95			
Glu	Ala	Cys	Tyr	Glu	Cys	Lys	Ile	Asn	Gly	Tyr	Pro	Lys	Arg	Gly	Arg		
		100					105						110				
Lys	Arg	Arg	Ser	Thr	Asn	Glu	Thr	Asp	Ala	Ser	Asn	Ile	Glu	Asp	Gln		
	115					120						125					

Ser Glu Thr Glu Ala Asn Val Ser Leu Ala Ser Trp Asp Val Glu Lys
 130 135 140
 Thr Ala Ile Phe Ala Phe Asn Ile Ser His Val Asn Lys Val Arg Ile
 145 150 155 160
 Leu

<210> 238
 <211> 162
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 238
 Cys Gly Gly Ala Ser Cys His Asn Thr Leu Gly Ser Tyr Lys Cys Met
 1 5 10 15
 Cys Pro Ala Gly Phe Gln Tyr Glu Gln Phe Ser Gly Gly Cys Gln Asp
 20 25 30
 Ile Asn Glu Cys Gly Ser Ala Gln Ala Pro Cys Ser Tyr Gly Cys Ser
 35 40 45
 Asn Thr Glu Gly Gly Tyr Leu Cys Gly Cys Pro Pro Gly Tyr Phe Arg
 50 55 60
 Ile Gly Gln Gly His Cys Val Ser Gly Met Gly Met Gly Arg Gly Asn
 65 70 75 80
 Pro Glu Pro Pro Val Ser Gly Glu Met Asp Asp Asn Ser Leu Ser Pro
 85 90 95
 Glu Ala Cys Tyr Glu Cys Lys Ile Asn Gly Tyr Pro Lys Arg Gly Arg
 100 105 110
 Lys Arg Arg Ser Thr Asn Glu Thr Asp Ala Ser Asn Ile Glu Asp Gln
 115 120 125
 Ser Glu Thr Glu Ala Asn Val Ser Leu Ala Ser Trp Asp Val Glu Lys
 130 135 140
 Thr Ala Ile Phe Ala Phe Asn Ile Ser His Val Ser Asn Lys Val Arg
 145 150 155 160
 Ile Leu

<210> 239
 <211> 88
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 239
 Asp Gly Asp Val Tyr Asn Pro Ser Thr Gly Val Phe Thr Ala Pro Tyr
 1 5 10 15
 Asp Gly Arg Tyr Leu Ile Thr Ala Thr Leu Thr Pro Glu Arg Asp Ala
 20 25 30
 Tyr Val Glu Ala Val Leu Ser Val Ser Asn Ala Ser Val Ala Gln Leu
 35 40 45
 His Thr Ala Gly Tyr Arg Arg Glu Phe Leu Glu Tyr His Arg Pro Pro
 50 55 60
 Gly Ala Leu His Thr Cys Gly Gly Pro Gly Ala Phe His Leu Ile Val
 65 70 75 80
 His Leu Lys Ala Gly Asp Ala Val
 85

<210> 240

<211> 46
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 240
 Asp Gly Tyr Pro Thr Gly Val Phe Thr Ala Pro Gly Arg Tyr Leu Ala
 1 5 10 15
 Leu Thr Arg Val Glu Ala Val Leu Ser Ser Asn Val Ala Gly Tyr Glu
 20 25 30
 Leu Glu Pro Gly Gly Pro Phe Leu Ile Leu Ala Gly Asp Val
 35 40 45

<210> 241
 <211> 88
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 241
 Asp Gly Gly Tyr Tyr Asp Pro Glu Thr Gly Val Phe Thr Ala Pro Leu
 1 5 10 15
 Ala Gly Arg Tyr Leu Leu Ser Ala Val Leu Thr Gly His Arg His Glu
 20 25 30
 Lys Val Glu Ala Val Leu Ser Arg Ser Asn Gln Gly Val Ala Arg Val
 35 40 45
 Asp Ser Gly Gly Tyr Glu Pro Glu Gly Leu Glu Asn Lys Pro Val Ala
 50 55 60
 Glu Ser Gln Pro Ser Pro Gly Thr Leu Gly Val Phe Ser Leu Ile Leu
 65 70 75 80
 Pro Leu Gln Ala Gly Asp Thr Val
 85

<210> 242
 <211> 88
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 242
 Asp Gly Asp Val Tyr Asn Pro Ser Thr Gly Val Phe Thr Ala Pro Tyr
 1 5 10 15
 Asp Gly Arg Tyr Leu Ile Thr Ala Thr Leu Thr Pro Glu Arg Asp Ala
 20 25 30
 Tyr Val Glu Ala Val Leu Ser Val Ser Asn Ala Ser Val Ala Gln Leu
 35 40 45
 His Thr Ala Gly Tyr Arg Arg Glu Phe Leu Glu Tyr His Arg Pro Pro
 50 55 60
 Gly Ala Leu His Thr Cys Gly Gly Pro Gly Ala Phe His Leu Ile Val
 65 70 75 80
 His Leu Lys Ala Gly Asp Ala Val
 85

<210> 243
 <211> 45
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 243

Asp	Gly	Tyr	Pro	Thr	Gly	Val	Phe	Thr	Ala	Pro	Gly	Arg	Tyr	Leu	Ala
1				5					10					15	
Leu	Thr	Arg	Val	Glu	Ala	Val	Leu	Ser	Ser	Asn	Val	Ala	Gly	Tyr	Glu
		20						25					30		
Leu	Glu	Pro	Gly	Gly	Phe	Leu	Ile	Leu	Ala	Gly	Asp	Val			
		35					40					45			

<210> 244
 <211> 88
 <212> PRT
 <213> Pseudomonas aeruginosa

Asp	Gly	Gly	Tyr	Tyr	Asp	Pro	Glu	Thr	Gly	Val	Phe	Thr	Ala	Pro	Leu
1				5					10					15	
Ala	Gly	Arg	Tyr	Leu	Leu	Ser	Ala	Val	Leu	Thr	Gly	His	Arg	His	Glu
		20						25					30		
Lys	Val	Glu	Ala	Val	Leu	Ser	Arg	Ser	Asn	Gln	Gly	Val	Ala	Arg	Val
		35					40					45			
Asp	Ser	Gly	Gly	Tyr	Glu	Pro	Glu	Gly	Leu	Glu	Asn	Lys	Pro	Val	Ala
	50					55					60				
Glu	Ser	Gln	Pro	Ser	Pro	Gly	Thr	Leu	Gly	Val	Phe	Ser	Leu	Ile	Leu
65					70					75					80
Pro	Leu	Gln	Ala	Gly	Asp	Thr	Val								
				85											

<210> 245
 <211> 51
 <212> PRT
 <213> Pseudomonas aeruginosa

Gly	Glu	Asn	Gly	Ser	Ser	Gly	Ser	Gln	Ala	Pro	Leu	Gln	Gly	Leu	Arg
1				5					10					15	
Gly	Ile	Phe	Gly	Leu	Trp	Gly	Arg	Arg	Ser	Arg	Ala	Arg	Phe	Cys	Gly
		20						25					30		
Pro	Arg	Pro	Val	Ala	Arg	Leu	Gly	Gly	Gly	Thr	Ser	Ala	Gly	Arg	Glu
		35					40					45			
Leu	Gly	Leu													
		50													

<210> 246
 <211> 24
 <212> PRT
 <213> Pseudomonas aeruginosa

Gly	Glu	Gly	Ser	Gly	Pro	Gln	Gly	Arg	Gly	Ile	Gly	Gly	Gly	Pro	Arg
1				5					10					15	
Pro	Gly	Gly	Gly	Ser	Gly	Gly	Leu								
			20												

<210> 247
 <211> 51
 <212> PRT

<213> Pseudomonas aeruginosa

<400> 247

Gly Glu Pro Gly Pro Ser Gly Glu Asn Gly Pro Gln Gly Val Arg Gly
1 5 10 15
Ile Pro Gly Val Val Gly Glu Asn Gly Lys Thr Gly Arg Gly Gly Pro
20 25 30
Arg Gly Pro Pro Gly Leu Arg Gly Gly Gly Ser Arg Gly Glu Arg
35 40 45
Gly Gly Leu
50

<210> 248

<211> 51

<212> PRT

<213> Pseudomonas aeruginosa

<400> 248

Gly Glu Asn Gly Ser Ser Gly Ser Gln Ala Pro Leu Gln Gly Leu Arg
1 5 10 15
Gly Ile Phe Gly Leu Trp Gly Arg Arg Ser Arg Ala Arg Phe Cys Gly
20 25 30
Pro Arg Pro Val Ala Arg Leu Gly Gly Gly Thr Ser Ala Gly Arg Glu
35 40 45
Leu Gly Leu
50

<210> 249

<211> 24

<212> PRT

<213> Pseudomonas aeruginosa

<400> 249

Gly Glu Gly Ser Gly Pro Gln Gly Arg Gly Ile Gly Gly Gly Pro Arg
1 5 10 15
Pro Gly Gly Gly Ser Gly Gly Leu
20

<210> 250

<211> 51

<212> PRT

<213> Pseudomonas aeruginosa

<400> 250

Gly Glu Pro Gly Pro Ser Gly Glu Asn Gly Pro Gln Gly Val Arg Gly
1 5 10 15
Ile Pro Gly Val Val Gly Glu Asn Gly Lys Thr Gly Arg Gly Gly Pro
20 25 30
Arg Gly Pro Pro Gly Leu Arg Gly Gly Gly Gly Ser Arg Gly Glu Arg
35 40 45
Gly Gly Leu
50

<210> 251

<211> 138

<212> PRT
 <213> Pseudomonas aeruginosa

<400> 251

Val	Glu	Pro	Phe	His	Gln	Gly	His	His	Ser	Val	Asp	Thr	Ala	Ala	Met
1				5					10					15	
Ala	Gly	Leu	Ala	Phe	Thr	Cys	Leu	Lys	Arg	Ser	Asn	Phe	Asn	Pro	Gly
			20					25					30		
Arg	Arg	Gln	Arg	Ile	Thr	Met	Ala	Ile	Arg	Thr	Val	Arg	Glu	Glu	Ile
		35					40					45			
Leu	Lys	Ala	Gln	Thr	Pro	Glu	Gly	His	Phe	Gly	Asn	Val	Tyr	Ser	Thr
	50					55					60				
Pro	Leu	Ala	Leu	Gln	Phe	Leu	Met	Thr	Ser	Pro	Met	Pro	Gly	Ala	Glu
65					70					75					80
Leu	Gly	Thr	Ala	Cys	Leu	Lys	Ala	Arg	Val	Ala	Leu	Leu	Ala	Ser	Leu
				85					90					95	
Gln	Asp	Gly	Ala	Phe	Gln	Asn	Ala	Leu	Met	Ile	Ser	Gln	Leu	Leu	Pro
			100					105					110		
Val	Leu	Asn	His	Lys	Thr	Tyr	Ile	Asp	Leu	Ile	Phe	Pro	Asp	Cys	Leu
		115					120					125			
Ala	Pro	Arg	Val	Met	Leu	Glu	Pro	Ala	Ala						
		130					135								

<210> 252
 <211> 138
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 252

Val	Glu	Pro	Phe	His	Gln	Gly	His	His	Ser	Val	Asp	Thr	Ala	Ala	Met
1				5					10					15	
Ala	Gly	Leu	Ala	Phe	Thr	Cys	Leu	Lys	Arg	Ser	Asn	Phe	Asn	Pro	Gly
			20					25					30		
Arg	Arg	Gln	Arg	Ile	Thr	Met	Ala	Ile	Arg	Thr	Val	Arg	Glu	Glu	Ile
		35					40					45			
Leu	Lys	Ala	Gln	Thr	Pro	Glu	Gly	His	Phe	Gly	Asn	Val	Tyr	Ser	Thr
	50					55					60				
Pro	Leu	Ala	Leu	Gln	Phe	Leu	Met	Thr	Ser	Pro	Met	Pro	Gly	Ala	Glu
65					70					75					80
Leu	Gly	Thr	Ala	Cys	Leu	Lys	Ala	Arg	Val	Ala	Leu	Leu	Ala	Ser	Leu
				85					90					95	
Gln	Asp	Gly	Ala	Phe	Gln	Asn	Ala	Leu	Met	Ile	Ser	Gln	Leu	Leu	Pro
			100					105					110		
Val	Leu	Asn	His	Lys	Thr	Tyr	Ile	Asp	Leu	Ile	Phe	Pro	Asp	Cys	Leu
		115					120					125			
Ala	Pro	Arg	Val	Met	Leu	Glu	Pro	Ala	Ala						
		130					135								

<210> 253
 <211> 138
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 253

Val	Glu	Pro	Phe	His	Gln	Gly	His	His	Ser	Val	Asp	Thr	Ala	Ala	Met
1				5					10					15	
Ala	Gly	Leu	Ala	Phe	Thr	Cys	Leu	Lys	Arg	Ser	Asn	Phe	Asn	Pro	Gly

		20						25					30				
Arg	Arg	Gln	Arg	Ile	Thr	Met	Ala	Ile	Arg	Thr	Val	Arg	Glu	Glu	Ile		
		35					40					45					
Leu	Lys	Ala	Gln	Thr	Pro	Glu	Gly	His	Phe	Gly	Asn	Val	Tyr	Ser	Thr		
		50				55					60						
Pro	Leu	Ala	Leu	Gln	Phe	Leu	Met	Thr	Ser	Pro	Met	Pro	Gly	Ala	Glu		
65					70				75						80		
Leu	Gly	Thr	Ala	Cys	Leu	Lys	Ala	Arg	Val	Ala	Leu	Leu	Ala	Ser	Leu		
				85				90						95			
Gln	Asp	Gly	Ala	Phe	Gln	Asn	Ala	Leu	Met	Ile	Ser	Gln	Leu	Leu	Pro		
		100					105					110					
Val	Leu	Asn	His	Lys	Thr	Tyr	Ile	Asp	Leu	Ile	Phe	Pro	Asp	Cys	Leu		
		115					120					125					
Ala	Pro	Arg	Val	Met	Leu	Glu	Pro	Ala	Ala								
		130					135										

<210> 254
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

Val	Glu	Pro	Phe	His	Gln	Gly	His	His	Ser	Val	Asp	Thr	Ala	Ala	Met		
1				5					10					15			
Ala	Gly	Leu	Ala	Phe	Thr	Cys	Leu	Lys	Arg	Ser	Asn	Phe	Asn	Pro	Gly		
		20					25						30				
Arg	Arg	Gln	Arg	Ile	Thr	Met	Ala										
		35					40										

<210> 255
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

Val	Glu	Pro	Phe	His	Gln	Gly	His	His	Ser	Val	Asp	Thr	Ala	Ala	Met		
1				5					10					15			
Ala	Gly	Leu	Ala	Phe	Thr	Cys	Leu	Lys	Arg	Ser	Asn	Phe	Asn	Pro	Gly		
		20					25						30				
Arg	Arg	Gln	Arg	Ile	Thr	Met	Ala										
		35					40										

<210> 256
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

Val	Glu	Pro	Phe	His	Gln	Gly	His	His	Ser	Val	Asp	Thr	Ala	Ala	Met		
1				5					10					15			
Ala	Gly	Leu	Ala	Phe	Thr	Cys	Leu	Lys	Arg	Ser	Asn	Phe	Asn	Pro	Gly		
		20					25						30				
Arg	Arg	Gln	Arg	Ile	Thr	Met	Ala										
		35					40										

<210> 257
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 257
 Val Glu Pro Phe His Gln Gly His His Ser Val Asp Thr Ala Ala Met
 1 5 10 15
 Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly
 20 25 30
 Arg Arg Gln Arg Ile Thr Met Ala
 35 40

<210> 258
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 258
 Val Glu Pro Phe His Gln Gly His His Ser Val Asp Thr Ala Ala Met
 1 5 10 15
 Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly
 20 25 30
 Arg Arg Gln Arg Ile Thr Met Ala
 35 40

<210> 259
 <211> 40
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 259
 Val Glu Pro Phe His Gln Gly His His Ser Val Asp Thr Ala Ala Met
 1 5 10 15
 Ala Gly Leu Ala Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly
 20 25 30
 Arg Arg Gln Arg Ile Thr Met Ala
 35 40

<210> 260
 <211> 141
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 260
 Arg Asn Cys Gln Asp Ile Asp Glu Cys Val Thr Gly Ile His Asn Cys
 1 5 10 15
 Ser Ile Asn Glu Thr Cys Phe Asn Ile Gln Gly Gly Phe Arg Cys Leu
 20 25 30
 Ala Phe Glu Cys Pro Glu Asn Tyr Arg Arg Ser Ala Ala Thr Leu Gln
 35 40 45
 Gln Glu Lys Thr Asp Thr Val Arg Cys Ile Lys Ser Cys Arg Pro Asn
 50 55 60
 Asp Val Thr Cys Val Phe Asp Pro Val His Thr Ile Ser His Thr Val
 65 70 75 80
 Ile Ser Leu Pro Thr Phe Arg Glu Phe Thr Arg Pro Glu Glu Ile Ile

				85					90				95			
Phe	Leu	Arg	Ala	Ile	Thr	Pro	Pro	His	Pro	Ala	Ser	Gln	Ala	Asn	Ile	
			100					105					110			
Ile	Phe	Asp	Ile	Thr	Glu	Gly	Asn	Leu	Arg	Asp	Ser	Phe	Asp	Ile	Ile	
		115					120					125				
Lys	Arg	Tyr	Met	Asp	Gly	Met	Thr	Val	Gly	Ile	Arg	Arg				
	130					135					140					

<210> 261
 <211> 138
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 261

Arg	Asn	Cys	Gln	Asp	Ile	Asp	Glu	Cys	Val	Thr	Gly	Ile	His	Asn	Cys	
1				5					10					15		
Ser	Ile	Asn	Glu	Thr	Cys	Phe	Asn	Ile	Gln	Gly	Phe	Arg	Cys	Leu	Ala	
			20					25					30			
Phe	Glu	Cys	Pro	Glu	Asn	Tyr	Arg	Arg	Ser	Ala	Ala	Thr	Leu	Gln	Gln	
		35					40					45				
Glu	Lys	Thr	Asp	Thr	Val	Arg	Cys	Ile	Lys	Ser	Cys	Arg	Pro	Asn	Asp	
	50					55					60					
Val	Thr	Cys	Val	Phe	Asp	Pro	Val	His	Thr	Ile	Ser	His	Thr	Val	Ile	
65					70					75					80	
Ser	Leu	Pro	Thr	Phe	Arg	Glu	Phe	Thr	Arg	Pro	Glu	Glu	Ile	Ile	Phe	
				85				90						95		
Leu	Arg	Ala	Ile	Thr	Pro	Pro	His	Pro	Ala	Ser	Gln	Ala	Asn	Ile	Ile	
			100					105					110			
Phe	Asp	Ile	Thr	Glu	Gly	Asn	Leu	Arg	Asp	Ser	Phe	Asp	Ile	Ile	Lys	
		115				120						125				
Arg	Tyr	Met	Asp	Gly	Met	Thr	Val	Gly	Arg							
	130					135										

<210> 262
 <211> 141
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 262

Arg	Asn	Cys	Gln	Asp	Ile	Asp	Glu	Cys	Val	Thr	Gly	Ile	His	Asn	Cys	
1				5					10					15		
Ser	Ile	Asn	Glu	Thr	Cys	Phe	Asn	Ile	Gln	Gly	Ala	Phe	Arg	Cys	Leu	
			20					25					30			
Ala	Phe	Glu	Cys	Pro	Glu	Asn	Tyr	Arg	Arg	Ser	Ala	Ala	Thr	Leu	Gln	
		35					40					45				
Gln	Glu	Lys	Thr	Asp	Thr	Val	Arg	Cys	Ile	Lys	Ser	Cys	Arg	Pro	Asn	
	50					55					60					
Asp	Val	Thr	Cys	Val	Phe	Asp	Pro	Val	His	Thr	Ile	Ser	His	Thr	Val	
65					70					75					80	
Ile	Ser	Leu	Pro	Thr	Phe	Arg	Glu	Phe	Thr	Arg	Pro	Glu	Glu	Ile	Ile	
				85				90						95		
Phe	Leu	Arg	Ala	Ile	Thr	Pro	Pro	His	Pro	Ala	Ser	Gln	Ala	Asn	Ile	
			100					105					110			
Ile	Phe	Asp	Ile	Thr	Glu	Gly	Asn	Leu	Arg	Asp	Ser	Phe	Asp	Ile	Ile	
		115				120						125				
Lys	Arg	Tyr	Met	Asp	Gly	Met	Thr	Val	Gly	Val	Val	Arg				
	130					135					140					

<210> 263
 <211> 150
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<220>
 <221> VARIANT
 <222> 14, 18, 19, 35, 37, 42, 51, 55, 60, 68, 70, 74, 85, 87, 91,
 96, 98, 106, 128, 135
 <223> Xaa = Any amino acid

<400> 263
 Pro Gly Ser Arg Ile Arg Gly Arg Val Asp Thr Leu Gln Xaa Asn Ala
 1 5 10 15
 Pro Xaa Xaa Met Met Val Lys Asp Glu Tyr Val His Asp Phe Glu Gly
 20 25 30
 Gln Pro Xaa Leu Xaa Thr Glu Gly His Xaa Ile Gln Thr Ile Gln His
 35 40 45
 Pro Pro Xaa Asn Arg Ala Xaa Thr Glu Thr Tyr Xaa Thr Pro Ala Leu
 50 55 60
 Leu Ala Pro Xaa Glu Xaa Asn Ala Thr Xaa Thr Ala Asn Phe Pro Asn
 65 70 75 80
 Ile Pro Val Ala Xaa Thr Xaa Gln Pro Ala Xaa Ile Leu Gly Gly Xaa
 85 90 95
 His Xaa Glu Gly Leu Leu Gln Ile Ala Xaa Gly Pro Gln Pro Gly Gln
 100 105 110
 Gln Gln Asn Gly Phe Thr Gly Gln Pro Ala Thr Tyr His His Asn Xaa
 115 120 125
 Thr Thr Thr Trp Thr Gly Xaa Arg Thr Ala Pro Tyr Thr Pro Asn Leu
 130 135 140
 Pro His His Gln Lys Gly
 145 150

<210> 264
 <211> 122
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 264
 Pro Gly Gly Thr Leu Gln Asn Ala Pro Met Met Val Lys Asp Glu Tyr
 1 5 10 15
 Val His Asp Phe Glu Gly Gln Pro Leu Thr Glu Gly His Ile Gln Thr
 20 25 30
 Ile Gln His Pro Pro Asn Arg Ala Thr Glu Thr Tyr Thr Pro Ala Leu
 35 40 45
 Leu Ala Pro Glu Asn Ala Thr Thr Ala Asn Phe Pro Asn Ile Pro Val
 50 55 60
 Ala Thr Gln Pro Ala Ile Leu Gly Gly His Glu Gly Leu Leu Gln Ile
 65 70 75 80
 Ala Gly Pro Gln Pro Gly Gln Gln Gln Asn Gly Phe Thr Gly Gln Pro
 85 90 95
 Ala Thr Tyr His His Asn Thr Thr Thr Trp Thr Gly Arg Thr Ala Pro
 100 105 110
 Tyr Thr Pro Asn Leu Pro His His Gln Gly
 115 120

<210> 265
 <211> 148
 <212> PRT
 <213> Pseudomonas aeruginosa

<220>
 <221> VARIANT
 <222> 16, 17
 <223> Xaa = Any Amino Acid

<400> 265
 Pro Gly Ile Asp Leu Ser Gly Leu Thr Leu Gln Ser Ser Ala Pro Xaa
 1 5 10 15
 Xaa Met Met Val Lys Asp Glu Tyr Val His Asp Phe Glu Gly Gln Pro
 20 25 30
 Ser Leu Ser Thr Glu Gly His Ser Ile Gln Thr Ile Gln His Pro Pro
 35 40 45
 Ser Asn Arg Ala Ser Thr Glu Thr Tyr Ser Thr Pro Ala Leu Leu Ala
 50 55 60
 Pro Ser Glu Ser Asn Ala Thr Ser Thr Ala Asn Phe Pro Asn Ile Pro
 65 70 75 80
 Val Ala Ser Thr Ser Gln Pro Ala Ser Ile Leu Gly Gly Ser His Ser
 85 90 95
 Glu Gly Leu Leu Gln Ile Ala Ser Gly Pro Gln Pro Gly Gln Gln Gln
 100 105 110
 Asn Gly Phe Thr Gly Gln Pro Ala Thr Tyr His His Asn Ser Thr Thr
 115 120 125
 Thr Trp Thr Gly Ser Arg Thr Ala Pro Tyr Thr Pro Asn Leu Pro His
 130 135 140
 His Gln Asn Gly
 145

<210> 266
 <211> 77
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 266
 Met Pro Ala Leu Arg Pro Ala Leu Leu Trp Ala Leu Leu Ala Leu Trp
 1 5 10 15
 Leu Cys Cys Ala Thr Pro Ala His Ala Leu Gln Cys Arg Asp Gly Tyr
 20 25 30
 Glu Pro Cys Val Asn Glu Gly Met Cys Val Thr Tyr His Asn Gly Thr
 35 40 45
 Gly Tyr Cys Lys Cys Pro Gly Phe Leu Gly Glu Tyr Cys Gln His Arg
 50 55 60
 Pro Cys Glu Lys Asn Arg Cys Gly Asp Pro Ser Thr Cys
 65 70 75

<210> 267
 <211> 62
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 267
 Met Pro Leu Arg Pro Ala Leu Ala Leu Leu Leu Trp Leu Cys Ala Pro
 1 5 10 15

Ala	His	Ala	Leu	Gln	Cys	Arg	Gly	Glu	Pro	Cys	Val	Asn	Glu	Gly	Cys
			20					25					30		
Val	Thr	Tyr	His	Asn	Gly	Thr	Gly	Cys	Cys	Pro	Gly	Phe	Leu	Gly	Glu
		35					40					45			
Tyr	Cys	Gln	His	Arg	Pro	Cys	Glu	Lys	Asn	Arg	Cys	Thr	Cys		
	50					55					60				

<210> 268
 <211> 79
 <212> PRT
 <213> *Pseudomonas aeruginosa*

Met	Pro	Asp	Leu	Arg	Pro	Ala	Ala	Leu	Arg	Ala	Leu	Leu	Trp	Leu	Trp
1				5					10					15	
Leu	Cys	Gly	Ala	Gly	Pro	Ala	His	Ala	Leu	Gln	Cys	Arg	Gly	Gly	Gln
			20					25					30		
Glu	Pro	Cys	Val	Asn	Glu	Gly	Thr	Cys	Val	Thr	Tyr	His	Asn	Gly	Thr
		35				40					45				
Gly	Phe	Cys	Arg	Cys	Pro	Glu	Gly	Phe	Leu	Gly	Glu	Tyr	Cys	Gln	His
	50					55					60				
Arg	Asp	Pro	Cys	Glu	Lys	Asn	Arg	Cys	Gln	Asn	Gly	Gly	Thr	Cys	
65					70					75					

<210> 269
 <211> 163
 <212> PRT
 <213> *Pseudomonas aeruginosa*

Ile	Arg	Gly	Arg	Val	Asp	Asp	Gln	Thr	Cys	Asp	Asn	Leu	Ser	Gln	Asn
1				5					10					15	
Pro	Pro	His	His	Leu	Leu	Leu	Arg	Leu	Leu	Asp	His	Trp	Gly	Asp	Pro
			20					25					30		
Ala	Gly	Cys	Trp	Ser	Leu	Gly	Gln	Thr	Tyr	Ser	Gly	His	Leu	Tyr	Leu
		35				40					45				
Pro	Tyr	Cys	Arg	Glu	Leu	His	Lys	Cys	Ser	Leu	Cys	Ala	His	Arg	Asn
	50					55					60				
Trp	His	His	Tyr	Cys	Cys	Leu	Trp	Pro	Val	Trp	Met	Leu	Cys	Tyr	Met
65				70					75						80
Ser	Trp	Pro	Met	Asp	Ala	Glu	Thr	Val	Cys	His	Val	Ser	Val	Pro	Gly
			85						90					95	
Val	Pro	Gly	Ala	Arg	Ser	Trp	His	Phe	Arg	Val	Cys	Val	Ser	Ser	Asp
			100					105					110		
Gln	Gly	His	Leu	Pro	Glu	Asp	Leu	His	Gly	Arg	Tyr	Ala	Asp	Leu	Gln
		115				120						125			
Trp	Gln	Glu	Glu	Pro	Gly	Ser	Gly	Pro	Cys	Ala	Ala	Gln	Pro	Glu	Leu
	130					135					140				
Leu	Trp	Cys	Ala	Glu	Leu	His	Gln	Leu	Glu	His	Gln	Pro	Leu	Leu	Pro
145					150					155					160
Gly	Ala	Trp													

<210> 270
 <211> 170
 <212> PRT

<213> Pseudomonas aeruginosa

<400> 270

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Ile Arg Gly Arg Val Asp Gln Val Gln His Pro Pro Leu Cys Leu Leu
 1          5          10          15
Asp Gln His Gln Gln Glu Cys Ile Pro Pro Cys Leu Pro Pro Asp His
 20          25          30
Leu Gln Asp Pro Gln His Pro Phe Leu Leu Pro Asp His His Val Pro
 35          40          45
His Leu Val Val Leu Ile Gln Pro Gln Leu Cys Arg Ala Leu Ala Pro
 50          55          60
Gln Gly His Ile Leu His Gln Ile Cys Pro Phe Gln Ser Tyr Pro His
 65          70          75          80
Met Val His Pro Gln Ile Gln Leu Gln Leu Val Leu Val His Gly Asp
 85          90          95
Pro Cys Leu Leu Asp Leu Gly Arg Gln Glu Trp Glu Gly Ser Ile Leu
100          105          110
Pro Leu Ile Cys His Ile His Leu Gln Ala His Ile Pro Leu Leu Leu
115          120          125
Pro Lys Pro Leu Gly Gln His His Leu Phe His Gly Ala Pro Phe His
130          135          140
Gln Glu Pro Gly Asp His Gln His His Ile Leu Pro Leu Gln Asp Arg
145          150          155          160
Ile Pro His Gln Asp Ser Ile Leu Leu Pro
          165          170
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<210> 271

<211> 170

<212> PRT

<213> Pseudomonas aeruginosa

<400> 271

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Ile Arg Gly Arg Val Asp Cys Gly Gly Ala Ser Cys His Asn Thr Leu
 1          5          10          15
Gly Ser Tyr Lys Cys Met Cys Pro Ala Gly Phe Gln Tyr Glu Gln Phe
 20          25          30
Ser Gly Gly Cys Gln Asp Ile Asn Glu Cys Gly Ser Ala Gln Ala Pro
 35          40          45
Cys Ser Tyr Gly Cys Ser Asn Thr Glu Gly Gly Tyr Leu Cys Gly Cys
 50          55          60
Pro Pro Gly Tyr Phe Arg Ile Gly Gln Gly His Cys Val Ser Gly Met
 65          70          75          80
Gly Met Gly Arg Gly Asn Pro Glu Pro Pro Val Ser Gly Glu Met Asp
 85          90          95
Asp Asn Ser Leu Ser Pro Glu Ala Cys Tyr Glu Cys Lys Ile Asn Gly
100          105          110
Tyr Pro Lys Arg Gly Arg Lys Arg Arg Ser Thr Asn Glu Thr Asp Ala
115          120          125
Ser Asn Ile Glu Asp Gln Ser Glu Thr Glu Ala Asn Val Ser Leu Ala
130          135          140
Ser Trp Asp Val Glu Lys Thr Ala Ile Phe Ala Phe Asn Ile Ser His
145          150          155          160
Val Ser Asn Lys Val Arg Ile Leu Leu Leu
          165          170
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<210> 272

<211> 130

<212> PRT
 <213> Pseudomonas aeruginosa

<400> 272
 Ile Arg Gly Arg Val Asp Gly Asp Val Tyr Asn Pro Ser Thr Gly Val
 1 5 10 15
 Phe Thr Ala Pro Tyr Asp Gly Arg Tyr Leu Ile Thr Ala Thr Leu Thr
 20 25 30
 Pro Glu Arg Asp Ala Tyr Val Glu Ala Val Leu Ser Val Ser Asn Ala
 35 40 45
 Ser Ser Gly Pro Ala Ala Tyr Arg Trp Val Gln Glu Arg Val Pro Gly
 50 55 60
 Ile Pro Pro Pro Ser Arg Ser Phe Ala Tyr Leu Arg Gly Pro Gly Gly
 65 70 75 80
 Ile Pro Pro His Arg Ala Pro Glu Gly Gly Arg Cys Ser Gln Arg Arg
 85 90 95
 Gly Asp Trp Gly Gln Ala Gly Ser His Arg Leu Asn Val Leu His Ile
 100 105 110
 Trp Gly Phe Leu Ile Ser Phe Pro Phe Pro Pro Leu Arg Trp Leu Gly
 115 120 125
 Arg Cys
 130

<210> 273
 <211> 143
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 273
 Ile Arg Gly Arg Val Asp Lys Glu Lys Lys Lys Val Phe Thr Leu Gly
 1 5 10 15
 Cys Gly Thr Ile Ser Gly Leu Pro Glu Gly Phe Pro Leu Glu Leu Pro
 20 25 30
 Glu Phe Pro Pro Gly His Phe Val Ser Arg Ser Gln Arg Gln Ala Gly
 35 40 45
 Tyr Ala Pro Gly Arg Ala Val Gly Ala Thr Leu Ala Asp Cys Ser Pro
 50 55 60
 Leu Leu His Leu Leu Pro Ala Ile His Pro Gln Glu Val Phe Pro Gln
 65 70 75 80
 His Trp Leu Val Arg Ser Ser Leu Cys Pro Gly Glu Asn Gly Ser Ser
 85 90 95
 Gly Ser Gln Ala Pro Leu Gln Gly Leu Arg Gly Ile Phe Gly Leu Trp
 100 105 110
 Gly Arg Arg Ser Arg Ala Arg Phe Cys Gly Pro Arg Pro Val Ala Arg
 115 120 125
 Leu Gly Gly Gly Thr Ser Ala Gly Arg Glu Leu Gly Leu Thr Pro
 130 135 140

<210> 274
 <211> 131
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 274
 Ile Arg Gly Arg Val Asp Gly Asp Asx Val Tyr Asn Pro Ser Thr Gly
 1 5 10 15
 Val Phe Thr Ala Pro Tyr Asp Gly Arg Tyr Leu Ile Thr Ala Thr Leu

			20					25				30					
Thr	Pro	Glu	Arg	Asp	Ala	Tyr	Val	Glu	Ala	Val	Leu	Ser	Val	Ser	Asn		
		35					40					45					
Ala	Ser	Ser	Gly	Pro	Ala	Ala	Tyr	Arg	Trp	Val	Trp	Glu	Arg	Val	Pro		
	50					55					60						
Gly	Ile	Pro	Pro	Pro	Ser	Arg	Ser	Phe	Ala	Tyr	Leu	Arg	Gly	Pro	Gly		
65					70					75					80		
Gly	Ile	Pro	Pro	His	Arg	Ala	Pro	Glu	Gly	Gly	Arg	Cys	Ser	Gln	Arg		
				85					90					95			
Arg	Gly	Asp	Trp	Gly	Gln	Ala	Gly	Ser	His	Arg	Leu	Asn	Val	Leu	His		
		100						105					110				
Ile	Trp	Gly	Phe	Leu	Ile	Ser	Phe	Pro	Phe	Pro	Pro	Leu	Arg	Trp	Leu		
	115						120					125					
Gly	Arg	Cys															
	130																

<210> 275
 <211> 168
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 275																	
Ile	Arg	Gly	Arg	Val	Asp	Arg	Asn	Cys	Gln	Asp	Ile	Asp	Glu	Cys	Val		
1				5					10				15				
Thr	Gly	Ile	His	Asn	Cys	Ser	Ile	Asn	Glu	Thr	Cys	Phe	Asn	Ile	Gln		
			20					25					30				
Gly	Gly	Phe	Arg	Cys	Leu	Ala	Phe	Glu	Cys	Pro	Glu	Asn	Tyr	Arg	Arg		
		35					40					45					
Ser	Ala	Ala	Thr	Leu	Gln	Gln	Glu	Lys	Thr	Asp	Thr	Val	Arg	Cys	Ile		
	50					55				60							
Lys	Ser	Cys	Arg	Pro	Asn	Asp	Val	Thr	Cys	Val	Phe	Asp	Pro	Val	His		
65					70				75						80		
Thr	Ile	Ser	His	Thr	Val	Ile	Ser	Leu	Pro	Thr	Phe	Arg	Glu	Phe	Thr		
			85					90					95				
Arg	Pro	Glu	Glu	Ile	Ile	Phe	Leu	Arg	Ala	Ile	Thr	Pro	Pro	His	Pro		
		100						105					110				
Ala	Ser	Gln	Ala	Asn	Ile	Ile	Phe	Asp	Ile	Thr	Glu	Gly	Asn	Leu	Arg		
		115					120					125					
Asp	Ser	Phe	Asp	Ile	Ile	Lys	Arg	Tyr	Met	Asp	Gly	Met	Thr	Val	Gly		
	130					135				140							
Val	Val	Arg	Gln	Val	Arg	Pro	Ile	Val	Gly	Pro	Phe	His	Ala	Val	Leu		
145					150					155					160		
Lys	Leu	Glu	Met	Asn	Tyr	Val	Val										
				165													

<210> 276
 <211> 145
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 276																	
Ile	Arg	Gly	Arg	Val	Asp	Thr	Leu	Gln	Ser	Asn	Ala	Pro	Ser	Ser	Met		
1				5				10						15			
Met	Val	Lys	Asp	Glu	Tyr	Val	His	Asp	Phe	Glu	Gly	Gln	Pro	Ser	Leu		
		20						25					30				
Ser	Thr	Glu	Gly	His	Ser	Ile	Gln	Thr	Ile	Gln	His	Pro	Pro	Ser	Asn		
		35					40					45					

Arg	Ala	Ser	Thr	Glu	Thr	Tyr	Ser	Thr	Pro	Ala	Leu	Leu	Ala	Pro	Ser
50						55					60				
Glu	Ser	Asn	Ala	Thr	Ser	Thr	Ala	Asn	Phe	Pro	Asn	Ile	Pro	Val	Ala
65						70				75					80
Ser	Thr	Ser	Gln	Pro	Ala	Ser	Ile	Leu	Gly	Gly	Ser	His	Ser	Glu	Gly
						85				90					95
Leu	Leu	Gln	Ile	Ala	Ser	Gly	Pro	Gln	Pro	Gly	Gln	Gln	Gln	Asn	Gly
						100				105					110
Phe	Thr	Gly	Gln	Pro	Ala	Thr	Tyr	His	His	Asn	Ser	Thr	Thr	Thr	Trp
		115					120						125		
Thr	Gly	Ser	Arg	Thr	Ala	Pro	Tyr	Thr	Pro	Asn	Leu	Pro	His	His	Gln
	130						135					140			
Lys															
145															

<210> 277
 <211> 139
 <212> PRT
 <213> Pseudomonas aeruginosa

Ile	Arg	Gly	Arg	Val	Asp	Arg	Arg	Pro	Arg	Ser	Gly	Gly	Leu	Arg	Ala
1				5					10					15	
Arg	Gly	Val	Glu	Ala	Phe	Ala	Pro	Gly	Leu	Arg	Ser	Val	Ala	Pro	Gly
			20					25					30		
Pro	Glu	Pro	Leu	Lys	Gln	Glu	Glu	Gly	Arg	Arg	Glu	Trp	Gly	Ser	Ser
			35				40					45			
Ile	Gly	Thr	Pro	Ser	Pro	Cys	Gly	Ser	Ala	Gln	Ala	Ala	Ala	Ala	Glu
	50					55					60				
Glu	Ala	Thr	Glu	Lys	Met	Pro	Ala	Leu	Arg	Pro	Ala	Leu	Leu	Trp	Ala
65					70					75					80
Leu	Leu	Ala	Leu	Trp	Leu	Cys	Cys	Ala	Thr	Pro	Ala	His	Ala	Gln	Cys
				85					90					95	
Arg	Asp	Gly	Tyr	Glu	Pro	Cys	Val	Asn	Glu	Gly	Met	Cys	Val	Thr	Tyr
			100					105					110		
His	Asn	Gly	Thr	Gly	Tyr	Cys	Lys	Cys	Pro	Gly	Phe	Leu	Gly	Glu	Tyr
		115					120						125		
Cys	Gln	His	Arg	Pro	Cys	Glu	Lys	Asn	Arg	Cys					
	130						135								

<210> 278
 <211> 953
 <212> PRT
 <213> Pseudomonas aeruginosa

Met	Ile	Asn	Ser	His	Leu	Leu	Tyr	Arg	Leu	Ser	Tyr	Arg	Gly	Thr	Ser
1				5					10					15	
Phe	Phe	Gln	Pro	Trp	Thr	Leu	Pro	Val	Leu	Leu	Asp	Ser	Arg	Leu	Arg
			20					25					30		
Gly	Ala	Pro	Phe	Tyr	Gly	Cys	Ala	Arg	Ala	Cys	Gln	Pro	Ser	Asp	Pro
			35				40					45			
Lys	Ser	Phe	Ser	Ser	Phe	Ser	Thr	Ser	Asp	Lys	Thr	Ala	Leu	Pro	Leu
	50					55					60				
His	Ala	Ala	Ala	Leu	Ser	Arg	Leu	Pro	Asp	Ala	His	Glu	Lys	Ala	Pro
65					70					75					80
Pro	Lys	Arg	Gly	Phe	Pro	Cys	Pro	Pro	Pro	Lys	Arg	Ser	Gly	Glu	Asp

				85					90					95			
Asp	Leu	Val	Ala	Phe	His	Leu	Arg	Arg	Asp	Thr	Gly	Thr	Arg	Arg	Glu		
			100					105					110				
Phe	Ala	Gly	Gln	Asp	Gln	Leu	Arg	Gln	Arg	Val	Leu	Asp	Pro	Ala	Leu		
		115					120					125					
Asp	Glv	Pro	Leu	Gln	Arg	Ala	Cys	Ala	Ile	Asp	Arg	Val	Glu	Ala	Asp		
	130					135					140						
Gly	Asn	Gln	Leu	Val	Gln	Arg	Leu	Leu	Ala	Gln	Phe	Gln	Ala	Gln	Leu		
145					150					155					160		
Ala	Leu	Gly	Gln	Ala	Leu	Ala	Gln	Ala	Thr	Glu	Leu	Asp	Leu	Gly	Asp		
			165						170					175			
Ala	Gly	Asp	Leu	Leu	Ala	Ser	Gln	Arg	Leu	Glu	His	His	His	Phe	Val		
			180					185					190				
Asp	Pro	Val	Asp	Glu	Phe	Arg	Thr	Glu	Val	Arg	Ile	Asp	Arg	Val	His		
	195						200					205					
His	Cys	Gly	Thr	Leu	Arg	Leu	Ala	Val	Ala	Gly	Gln	Leu	Leu	Asp	Leu		
	210					215					220						
Arg	Arg	Thr	Glu	Val	Gly	Gly	His	His	His	His	Gly	Val	Ala	Glu	Val		
225					230					235					240		
His	Arg	Thr	Pro	Val	Thr	Val	Gly	Gln	Ala	Ser	Val	Leu	Glu	His	Leu		
			245					250						255			
Glu	Glu	Asn	Val	Glu	Tyr	Ile	Arg	Met	Gly	Leu	Leu	His	Leu	Val	Gln		
		260						265						270			
Gln	His	His	Arg	Val	Gly	Leu	Ala	Ala	Asp	Arg	Leu	Gly	Gln	Val	Ala		
	275						280					285					
Ala	Phe	Leu	Glu	Ala	Asp	Val	Ala	Arg	Arg	Arg	Ala	Asp	Gln	Ala	Gly		
	290					295					300						
His	Arg	Val	Phe	Leu	His	Glu	Leu	Gly	His	Ile	Tyr	Pro	His	Gln	Arg		
305					310				315						320		
Leu	Leu	Gly	Ile	Glu	Glu	Glu	Leu	Gly	Gln	Arg	Leu	Ala	Gln	Leu	Gly		
			325					330						335			
Leu	Ala	His	Pro	Gly	Arg	Ala	Glu	Glu	Glu	Glu	Arg	Ala	Ala	Arg	Pro		
		340					345						350				
Val	Arg	Ile	Gly	Glu	Ala	Gly	Ala	Arg	Thr	Ala	His	Gly	Val	Gly	His		
	355						360					365					
Gly	Asp	Tyr	Arg	Leu	Val	Leu	Ala	Asp	His	Ser	Pro	Met	Gln	Leu	Leu		
	370					375					380						
Leu	His	Ala	Gln	Gln	Leu	Leu	Ala	Leu	Ala	Leu	Glu	His	Leu	Arg	His		
385					390					395					400		
Arg	Asp	Thr	Gly	Pro	Leu	Gly	Asn	His	Phe	Gly	Asp	Phe	Leu	Val	Gly		
			405					410						415			
His	Leu	Val	Ala	Gln	Gln	Leu	Val	Leu	Gly	Leu	Ala	Val	Leu	Val	Asp		
		420					425						430				
His	Leu	Gln	Ala	Ala	Phe	Gln	Val	Arg	Asp	Gly	Leu	Val	Leu	Asp	Ala		
	435					440					445						
Arg	His	Ala	Leu	Glu	Val	Ala	Leu	Ala	Pro	Arg	Arg	Leu	His	Leu	Leu		
	450					455					460						
Leu	Gly	Leu	Leu	Asp	Leu	Leu	Leu	Asp	Leu	Arg	Arg	Ala	Leu	His	Leu		
465					470				475						480		
Gly	Leu	Leu	Gly	Leu	Pro	Asp	Leu	Leu	Glu	Val	Gly	Val	Phe	Ala	Leu		
			485						490					495			
Glu	Leu	Asp	Asp	Ile	Leu	Leu	Gln	Leu	Gly	Gln	Ala	Leu	Pro	Gly	Gly		
		500					505						510				
Phe	Val	Val	Phe	Leu	Leu	Gln	Arg	Leu	Ala	Leu	Asp	Leu	Gln	Leu	Asp		
	515					520						525					
Gln	Ala	Thr	Val	Glu	Thr	Ile	Gln	Phe	Leu	Arg	Leu	Gly	Val	Asp	Leu		
	530					535					540						
His	Ala	Asp	Ala	Ala	Gly	Gly	Leu	Val	Asp	Gln	Val	Asp	Gly	Leu	Val		
545					550				555						560		

Arg	Gln	Leu	Pro	Ile	Gly	Asp	Val	Ala	Val	Arg	Gln	Leu	Gly	Arg	Gly
				565					570					575	
Asp	Asp	Arg	Ala	Val	Gly	Asp	Ala	His	Pro	Val	Val	His	Phe	Ile	Ala
			580					585					590		
Phe	Leu	Glu	Ala	Thr	Glu	Asp	Gly	Asp	Gly	Val	Phe	Leu	Ala	Arg	Phe
		595					600					605			
Val	His	Gln	His	Leu	Leu	Glu	Ala	Ala	Leu	Gln	Arg	Gly	Ile	Leu	Leu
	610					615				620					
Asp	Val	Leu	Ala	Ile	Leu	Val	Glu	Gly	Ser	Ser	Thr	Asp	Ala	Val	Gln
625					630					635					640
Leu	Ala	Ala	Arg	Gln	Ser	Arg	Leu	Glu	His	Val	Ala	Gly	Val	His	Gly
				645					650					655	
Thr	Phe	Arg	Leu	Ala	Gly	Ala	Asp	His	Gly	Val	Gln	Phe	Val	Asp	Glu
			660					665					670		
Gln	Asp	Asp	Pro	Ala	Phe	Leu	Leu	Ala	Gln	Phe	Val	Glu	Asp	Arg	Leu
		675					680						685		
Gln	Ala	Phe	Leu	Glu	Leu	Ala	Glu	Leu	Gly	Thr	Gly	Asp	Gln	Arg	
	690					695				700					
Pro	His	Val	Gln	Gly	Gln	Gln	Ala	Leu	Val	Leu	Glu	Ala	Val	Arg	His
705					710					715					720
Phe	Ala	Val	Asp	Asp	Ala	Leu	Gly	Gln	Ala	Leu	Asp	Asp	Gly	Gly	Leu
				725					730					735	
Ala	Asp	Ala	Gly	Phe	Ala	Asp	Gln	His	Arg	Val	Val	Leu	Gly	Pro	Pro
			740					745					750		
Leu	Gln	Asp	Leu	Asp	Gly	Pro	Ala	Asp	Leu	Val	Val	Ala	Thr	Asp	His
		755					760					765			
Arg	Val	Glu	Leu	Ala	Phe	Leu	Gly	Ala	Leu	Gly	His	Val	Asp	Gly	Val
	770					775					780				
Leu	Val	Gln	Arg	Leu	Ala	Arg	Leu	Leu	Asp	Val	Arg	Val	Val	His	Arg
785					790					795					800
Phe	Ala	Ala	Thr	Gln	Val	Gly	His	Gly	Ile	Leu	Gln	Arg	Leu	Ala	Arg
				805					810					815	
His	Ala	Leu	Ala	Glu	Gln	Gln	Leu	Ala	Glu	Pro	Gly	Val	Leu	Val	His
			820					825					830		
Arg	Gly	Gln	Gln	Tyr	Gln	Leu	Ala	Gly	Asp	Glu	Leu	Val	Ala	Leu	Leu
		835					840					845			
Leu	Gly	Gln	Ala	Val	Ser	Leu	Val	Glu	Gln	Ala	Cys	Glu	Ile	Leu	Gly
	850					855					860				
Gln	Val	His	Val	Ala	Gly	Arg	Ala	Leu	Asp	Leu	Arg	Gln	Arg	Val	Glu
865					870					875					880
Phe	Phe	Val	Glu	Ala	Ala	Ala	Gln	Gly	Gly	Asp	Ile	Glu	Ala	Asp	Leu
				885					890					895	
His	Gln	Gln	Gly	Leu	Asp	Arg	Thr	Ala	Leu	Leu	Leu	Glu	Gln	Gly	Gly
			900					905					910		
Lys	Gln	Val	His	Arg	Leu	Asp	Gly	Arg	Met	Val	Met	Ala	Asn	Gly	Gln
		915					920					925			
Gly	Leu	Gly	Val	Gly	Glu	Arg	Gln	Leu	Gln	Leu	Ala	Gly	Gln	Thr	Val
	930					935					940				
Tyr	Ser	His	Gly	Ser	Ser	Phe	Leu	Leu							
945					950										

<210> 279

<211> 854

<212> PRT

<213> Pseudomonas aeruginosa

<400> 279

Met Arg Ile Asp Arg Leu Thr Ser Lys Leu Gln Leu Ala Leu Ser Asp

1				5					10					15			
Ala	Gln	Ser	Leu	Ala	Val	Gly	His	Asp	His	Pro	Ala	Ile	Glu	Pro	Val		
			20					25					30				
His	Leu	Leu	Ser	Ala	Leu	Leu	Glu	Gln	Gln	Gly	Gly	Ser	Ile	Lys	Pro		
	35						40					45					
Leu	Leu	Met	Gln	Val	Gly	Phe	Asp	Ile	Ala	Ala	Leu	Arg	Ser	Gly	Leu		
	50				55						60						
Asn	Lys	Glu	Leu	Asp	Ala	Leu	Pro	Lys	Ile	Gln	Ser	Pro	Thr	Gly	Asp		
65				70					75					80			
Val	Asn	Leu	Ser	Gln	Asp	Leu	Ala	Arg	Leu	Leu	Asn	Gln	Ala	Asp	Arg		
			85					90					95				
Leu	Ala	Gln	Gln	Lys	Gly	Asp	Gln	Phe	Ile	Ser	Ser	Glu	Leu	Val	Leu		
			100				105						110				
Leu	Ala	Ala	Met	Asp	Glu	Asn	Thr	Arg	Leu	Gly	Lys	Leu	Leu	Leu	Gly		
	115						120					125					
Gln	Gly	Val	Ser	Arg	Lys	Ala	Leu	Glu	Asn	Ala	Val	Ala	Asn	Leu	Arg		
	130				135						140						
Gly	Gly	Glu	Ala	Val	Asn	Asp	Pro	Asn	Val	Glu	Glu	Ser	Arg	Gln	Ala		
145				150					155					160			
Leu	Asp	Lys	Tyr	Thr	Val	Asp	Met	Thr	Lys	Arg	Ala	Glu	Glu	Gly	Lys		
			165					170						175			
Leu	Asp	Pro	Val	Ile	Gly	Arg	Asp	Asp	Glu	Ile	Arg	Arg	Thr	Ile	Gln		
	180						185						190				
Val	Leu	Gln	Arg	Arg	Thr	Lys	Asn	Asn	Pro	Val	Leu	Ile	Gly	Glu	Pro		
	195						200					205					
Gly	Val	Gly	Lys	Thr	Ala	Ile	Val	Glu	Gly	Leu	Ala	Gln	Arg	Ile	Ile		
	210				215					220							
Asn	Gly	Glu	Val	Pro	Asp	Gly	Leu	Lys	Asp	Lys	Arg	Leu	Leu	Ala	Leu		
225				230					235					240			
Asp	Met	Gly	Ala	Leu	Ile	Ala	Gly	Ala	Lys	Phe	Arg	Gly	Glu	Phe	Glu		
			245					250						255			
Glu	Arg	Leu	Lys	Ala	Val	Leu	Asn	Glu	Leu	Gly	Lys	Gln	Glu	Gly	Arg		
		260					265					270					
Val	Ile	Leu	Phe	Ile	Asp	Glu	Leu	His	Thr	Met	Val	Gly	Ala	Gly	Lys		
	275					280						285					
Ala	Glu	Gly	Ala	Met	Asp	Ala	Gly	Asn	Met	Leu	Lys	Pro	Ala	Leu	Ala		
	290				295					300							
Arg	Gly	Glu	Leu	His	Cys	Val	Gly	Ala	Thr	Thr	Leu	Asp	Glu	Tyr	Arg		
305				310					315					320			
Gln	Tyr	Ile	Glu	Lys	Asp	Ala	Ala	Leu	Glu	Arg	Arg	Phe	Gln	Lys	Val		
			325						330					335			
Leu	Val	Asp	Glu	Pro	Ser	Glu	Glu	Asp	Thr	Ile	Ala	Ile	Leu	Arg	Gly		
		340					345					350					
Leu	Lys	Glu	Arg	Tyr	Glu	Val	His	His	Gly	Val	Ser	Ile	Thr	Asp	Gly		
	355					360						365					
Ala	Ile	Ile	Ala	Ala	Ala	Lys	Leu	Ser	His	Arg	Tyr	Ile	Thr	Asp	Arg		
	370				375						380						
Gln	Leu	Pro	Asp	Lys	Ala	Ile	Asp	Leu	Ile	Asp	Glu	Ala	Ala	Ser	Arg		
385				390					395					400			
Ile	Arg	Met	Glu	Ile	Asp	Ser	Lys	Pro	Glu	Glu	Leu	Asp	Arg	Leu	Asp		
			405					410						415			
Arg	Arg	Leu	Ile	Gln	Leu	Lys	Ile	Glu	Arg	Glu	Ala	Leu	Lys	Lys	Glu		
		420					425					430					
Asp	Asp	Glu	Ala	Thr	Arg	Lys	Arg	Leu	Ala	Lys	Leu	Glu	Glu	Asp	Ile		
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Val	Lys	Leu	Glu	Arg	Glu	Tyr	Ala	Asp	Leu	Glu	Glu	Ile	Trp	Lys	Ser		
	450				455						460						
Glu	Lys	Ala	Glu	Val	Gln	Gly	Ser	Ala	Gln	Ile	Gln	Gln	Lys	Ile	Glu		
465				470					475					480			

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 Asp Asp Ile Leu Leu Gln Leu Gly Gln Ala Leu Pro Gly Gly Phe Val
 515 520 525
 Val Phe Leu Leu Gln Arg Leu Ala Leu Asp Leu Gln Leu Asp Gln Ala
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 Thr Val Glu Thr Ile Gln Phe Leu Arg Leu Gly Val Asp Leu His Ala
 545 550 555 560
 Asp Ala Ala Gly Gly Leu Val Asp Gln Val Asp Gly Leu Val Arg Gln
 565 570 575
 Leu Pro Ile Gly Asp Val Ala Val Arg Gln Leu Gly Arg Gly Asp Asp
 580 585 590
 Arg Ala Val Gly Asp Ala His Pro Val Val His Phe Ile Ala Phe Leu
 595 600 605
 Glu Ala Thr Glu Asp Gly Asp Gly Val Phe Leu Ala Arg Phe Val His
 610 615 620
 Gln His Leu Leu Glu Ala Ala Leu Gln Arg Gly Ile Leu Leu Asp Val
 625 630 635 640
 Leu Ala Ile Leu Val Glu Gly Ser Ser Thr Asp Ala Val Gln Leu Ala
 645 650 655
 Ala Arg Gln Ser Arg Leu Glu His Val Ala Gly Val His Gly Thr Phe
 660 665 670
 Arg Leu Ala Gly Ala Asp His Gly Val Gln Phe Val Asp Glu Gln Asp
 675 680 685
 Asp Pro Ala Phe Leu Leu Ala Gln Phe Val Glu Asp Arg Leu Gln Ala
 690 695 700
 Phe Leu Glu Leu Ala Ala Glu Leu Gly Thr Gly Asp Gln Arg Pro His
 705 710 715 720
 Val Gln Gly Gln Gln Ala Leu Val Leu Glu Ala Val Arg His Phe Ala
 725 730 735
 Val Asp Asp Ala Leu Gly Gln Ala Leu Asp Asp Gly Gly Leu Ala Asp
 740 745 750
 Ala Gly Phe Ala Asp Gln His Arg Val Val Leu Gly Pro Pro Leu Gln
 755 760 765
 Asp Leu Asp Gly Pro Ala Asp Leu Val Val Ala Thr Asp His Arg Val
 770 775 780
 Glu Leu Ala Phe Leu Gly Ala Leu Gly His Val Asp Gly Val Leu Val
 785 790 795 800
 Gln Arg Leu Ala Arg Leu Leu Asp Val Arg Val Val His Arg Phe Ala
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 Ala Thr Gln Val Gly His Gly Ile Leu Gln Arg Leu Ala Arg His Ala
 820 825 830
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 835 840 845
 Gln Gln Tyr Gln Leu Ala Gly Asp Glu Leu Val Ala Leu Leu Leu Gly
 850 855 860
 Gln Ala Val Ser Leu Val Glu Gln Ala Cys Glu Ile Leu Gly Gln Val
 865 870 875 880
 His Val Ala Gly Arg Ala Leu Asp Leu Arg Gln Arg Val Glu Phe Phe
 885 890 895
 Val Glu Ala Ala Ala Gln Gly Gly Asp Ile Glu Ala Asp Leu His Gln
 900 905 910
 Gln Gly Leu Asp Arg Thr Ala Leu Leu Leu Glu Gln Gly Gly Lys Gln
 915 920 925
 Val His Arg Leu Asp Gly Arg Met Val Met Ala Asn Gly Gln Gly Leu
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<210> 281
 <211> 2904
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 281

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<210> 282
 <211> 309
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 282
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 gcgttgacgc ctgagcagca aaagatccag gagctggaag cccggatcaa ccgattggag 240
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 acgcgctga 309

<210> 283
 <211> 1862
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 283
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 aagaaatact cggcgcggtt ccggggattt tttttatgag gttgcgcgct tgaaaaacag 1800
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 ct 1862

<210> 284
 <211> 1462
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<400> 284
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<210> 285

<211> 830

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 285

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<210> 286

<211> 987

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 286

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<210> 287

<211> 987

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 287

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<210> 288

<211> 1118

<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 288

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1118

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<212> DNA

<213> *Pseudomonas aeruginosa*

<400> 289

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<210> 290

<211> 1185

<212> DNA

<213> *Pseudomonas aeruginosa*

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